TEXTILE WORLD

APRIL • 1951

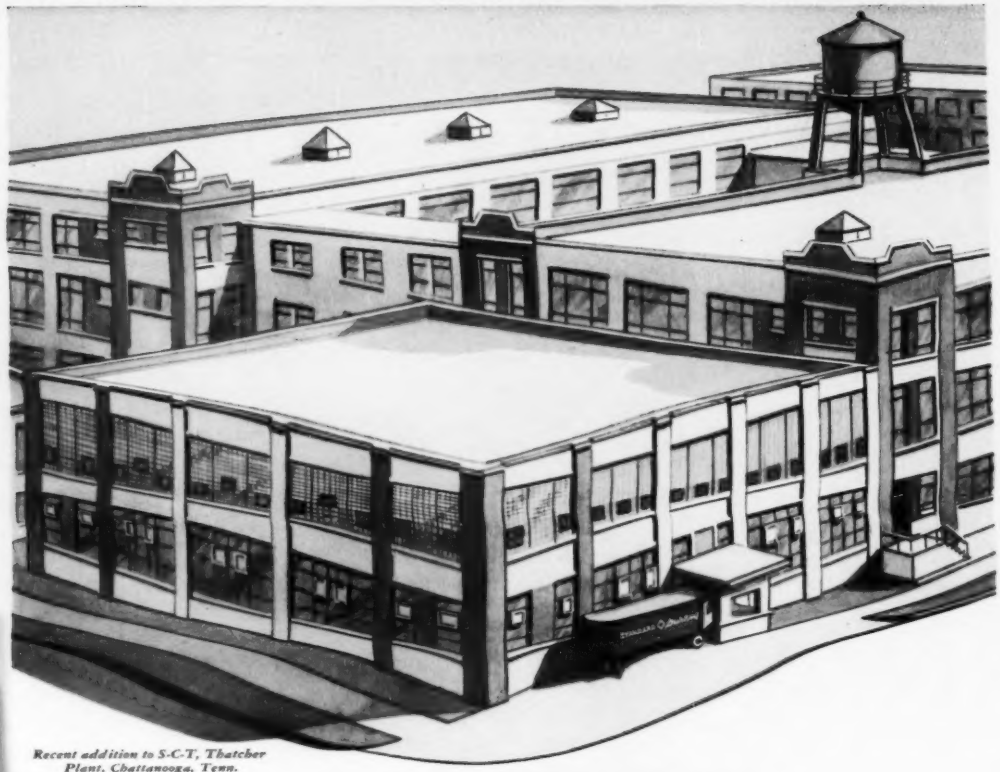
ARTICLES IN THIS ISSUE DISCUSS:

ANNUAL KNITTING NUMBER — Featuring Maintenance for Maximum Production

Guide to Exhibitors
40th Knitting Arts Exhibition

INTERNATIONAL EDITION

Complete U.S. Edition With Spanish, French, and German Supplement in Back



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Many of America's best known manufacturers depend on the Standard-Coosa-Thatcher Company for the yarns and threads they use in a wide range of products.

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Our partial list of clients in the textile field, at the left—some of which we've served for many years and on many projects—indicates the diversification of our textile experience.

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Architects and Engineers

ATLANTA

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THE *Long-Range* VIEW

Research Can Be Applied to Supervision

A three-year study to determine some of the things that affect worker productivity has just been completed at the Prudential Insurance Co., Newark, N. J. The most important fact uncovered was that among groups of workers doing similar tasks under similar conditions highest production is obtained primarily through good supervision.

The official report put it this way: "Most of the differences found between high- and low-producing work groups appear to be related to the differing nature of the supervision of these groups."

According to the report, the high-producing supervisors:

1. Receive only general supervision from their superiors.
2. Like the authority and responsibility of their jobs.
3. Spend most of their time in supervising.
4. Give only general, not close, supervision.
5. Are more worker-conscious than production-conscious.

This study was made among office workers, but the results are significant for mills. They show scientifically that worker productivity responds to good supervision. They also specify what type of supervision is good.

There is strong indication from other sources, however, that more should be learned about matching the job with the proper type of supervisor personality. One important mill we visited recently is engaged in a serious effort to find out what "personality pattern" is best for each of its jobs. The men in management have found quite definitely, they report, that "supervisory jobs in different departments of the mill require different characteristics in the supervisors." They found too that a change of one overseer can make the difference between operating a whole mill at a loss and operating it at a profit.

As we see it, these things add up to an important challenge. Mills should find out, scientifically, just what their supervisory problems are and how they can be solved.

We emphasize that it should be done scientifically. The Prudential report states, "The results . . . suggest that many of the principles of organization and management widely held and widely applied at present are based on theories of human motivation that are not valid." When more valid principles and theories are applied, "increases in productivity and group satisfaction" will result.

If the theories and principles we've been operating on are wrong, opinions based on experience gained in those principles and theories can't be right. We therefore need "new blood" in the mill organization—a psychologist or skilled social worker who can get to the heart of the trouble and prescribe a remedy. A new outlook and a new approach to production through accurate knowledge of worker motivation are needed.

A couple of days ago a key man in an organization that operates ten mills said, "Many times a boss doesn't want a smart assistant, even though he says he does. What he really wants is somebody who thinks as he does."

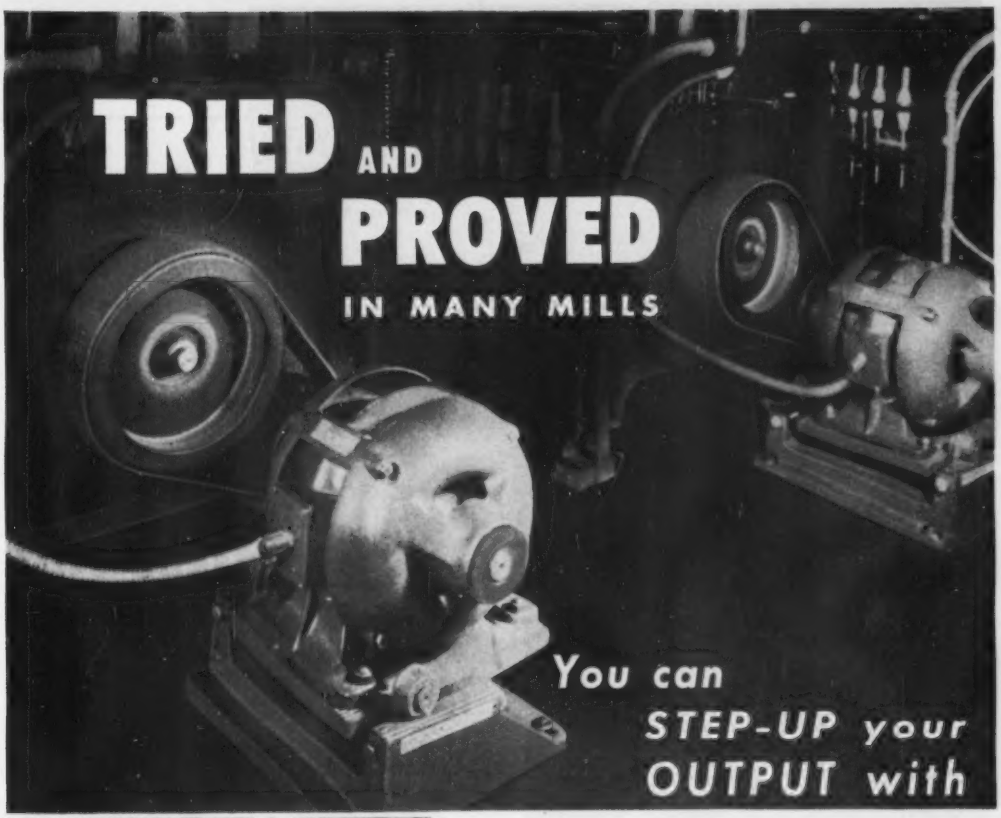
It was this mill man's opinion that many supervisors are selected and trained with that requirement in mind. Certainly every real study of a company's supervisory force indicates that selection and training are haphazard. The worst thing is that mills continue—in the face of considerable scientific evidence—to select and train the men most important to production by opinion and prejudice.

The mill man quoted above also said, "We spend $13 million a year for fiber and another $13 million on people. We do everything we can to get the most out of the fiber—such as size warps, maintain humidity, improve machinery, etc. But we don't do much about that second $13 million. What we need is a serious research program on people."

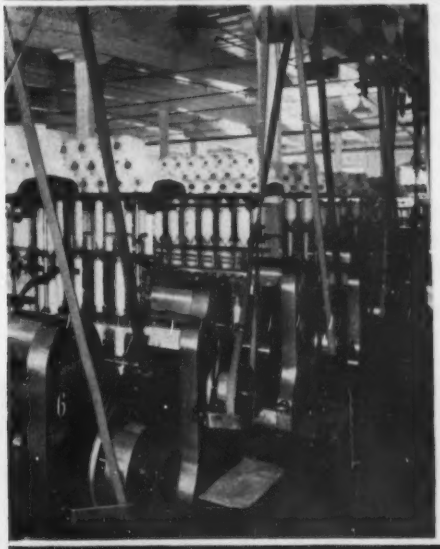
It is evident that practically every mill in the country needs some of that type of research. Thousands of dollars are spent for labor every week in every large mill. If worker productivity could be increased only 1%, it would be a very costly opinion that insisted on clinging to wrong principles and theories.

A. M. Thomas

TRIED AND PROVED IN MANY MILLS



You can STEP-UP your OUTPUT with



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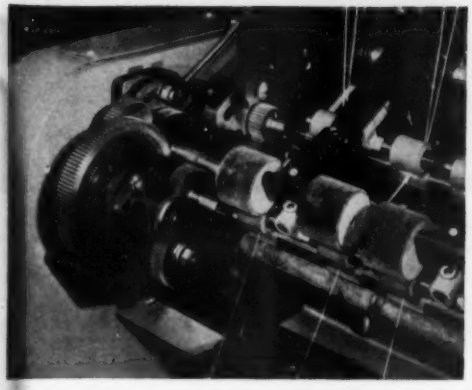

Gear cover raised to show the draft gearing, and with drafting rolls down in operating position.

SACO-LOWELL's SS-4 Spinning Drafting System is a **completely new method** of drafting wools up to 6" in staple length, and longer. Heavy, cumbersome, complicated equipment heretofore seen in the average worsted yarn spinning mill is being replaced with a series of single machines, free from intricate and sensitive sub-assemblies which are hard for the operative to understand, difficult to adjust, and expensive to maintain.

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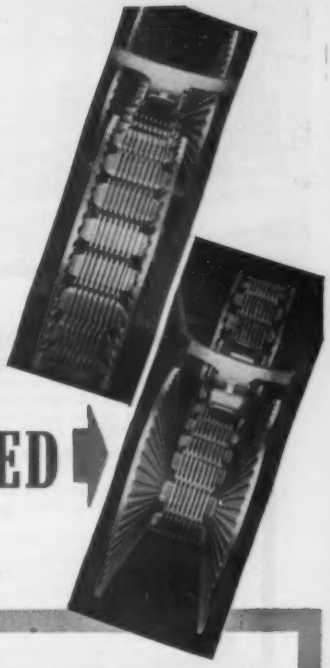

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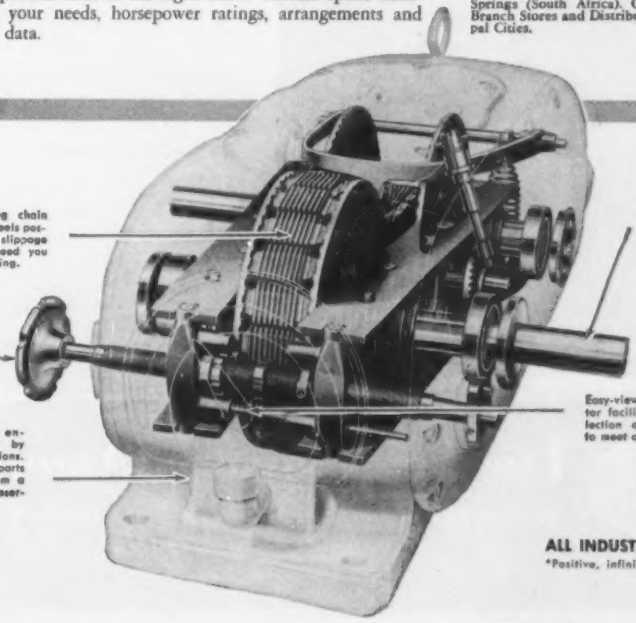

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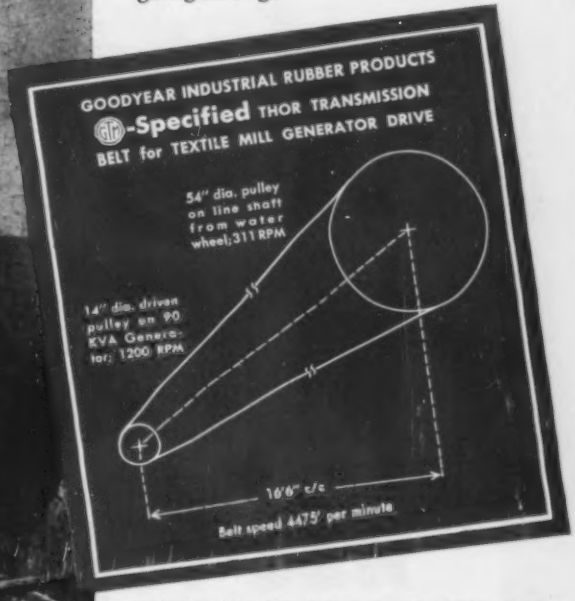
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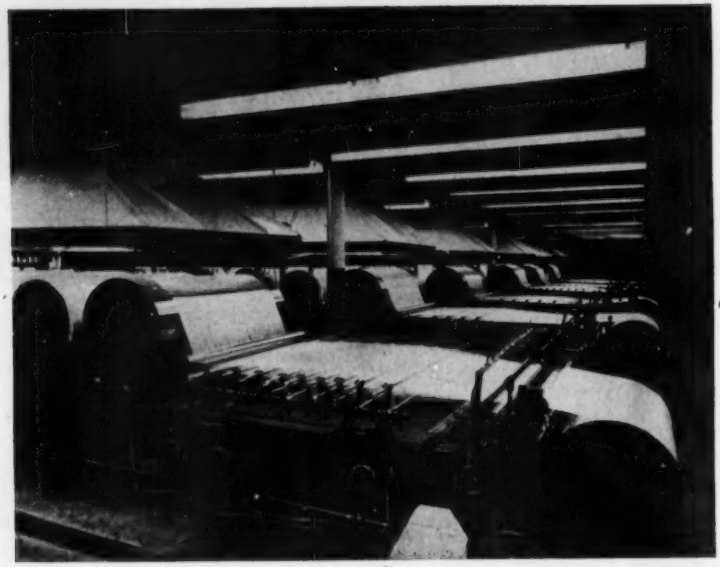

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of superior new fabrics.

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highly purified wood cellulose—
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SPEED CONTROL PAYS OFF in production and reduced costs with *Texrope* drives. The simple addition of a *Vari-Pitch* drive (using your present standard speed motor) provides speed control that is both accurate and low cost.

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Vari-Pitch sheaves are available in a wide range of sizes, in Standard and Wide Range types with either Stationary or Motion control.

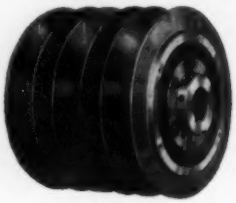
In addition, Allis-Chalmers offers you more than the drive itself. A-C offers the extra engineering skill that comes from having more industrial V-belt installations than any other manufacturer. The first multiple V-belt drive was by Allis-Chalmers . . . and that drive was for the textile industry.

GET COMPLETE SERVICE

Take advantage of this *Texrope* V-belt drive experience the next time you are ordering. Call your nearest Allis-Chalmers Authorized Dealer or District Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. A-3326

Texrope and Vari-Pitch are Allis-Chalmers trademarks.

Take Your Choice of These *Texrope* Variable Speed Drives



VARI-PITCH Wide Range Sheave

Provides speed flexibility at low cost. Sheaves are built with one to four grooves for Q and R belts. Capacity: fractional to 30 hp, in Stationary and Motion Control types. Speed range: 2 to 1.

VARI-PITCH Standard Sheave

Speed range of 9% to 28% on drives of 1 to 300 horsepower, using A, B, C, D, or E belts. Two to 10 grooves. These sheaves are available in either Motion Control or Stationary Control types.

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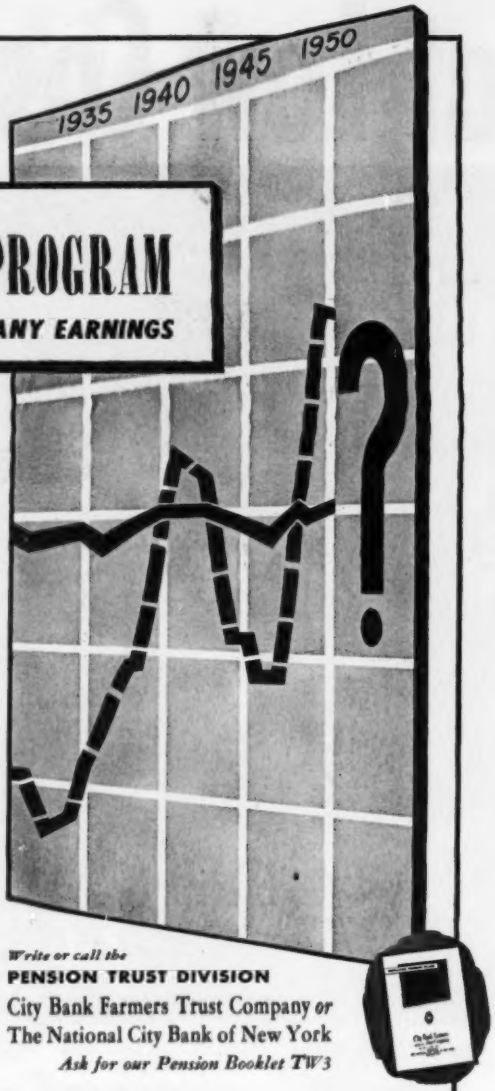
Patterns in Pensions

YOUR RETIREMENT PROGRAM

SHOULD BE GEARED TO YOUR COMPANY EARNINGS



IF your company
EARNINGS ARE STEADY

Your company probably can afford the permanent commitment of an adequate pension system.

IF your company
EARNINGS ARE ERRATIC

Your company probably can best solve the retirement problem through a deferred profit-sharing trust—or a combination of a modest fixed pension commitment plus a profit-sharing retirement plan.

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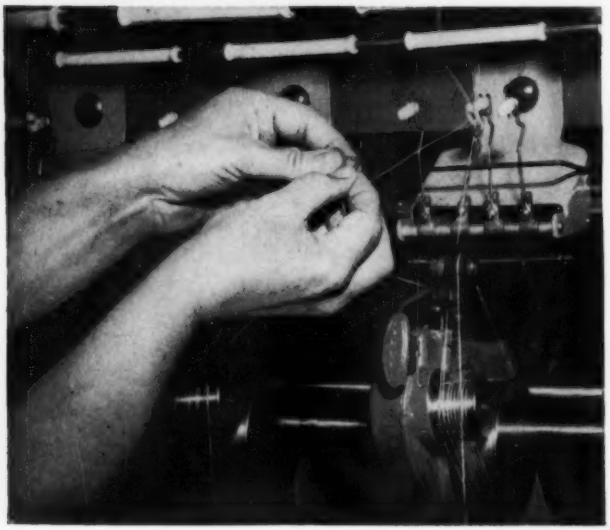
SANDOZ *thinks ahead with textiles*

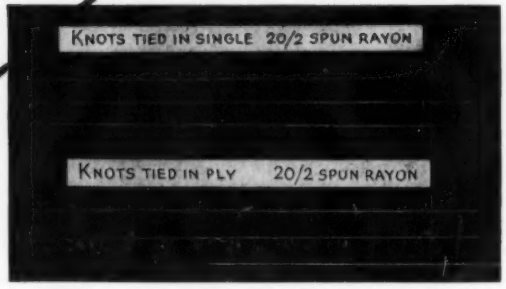


Tying knots HERE

Individual automatic stopping mechanism for each end in the ply improves quality of yarn on Atwood Model 10 Ring Twisters—cotton, worsted, spun rayon, nylon, blends, etc.

Each end passes through a drop wire. When a break or run-out occurs, the wire instantly actuates a mechanism to stop the feed rolls and the spindle . . . so that the knot can be tied in the single end.

This means knots are smaller, therefore less troublesome. Also, *drop ply* can't get into the package . . . and roller laps are prevented, reducing waste.



makes THIS difference in quality

When a break is tied in the single end prior to twisting and the tails are properly clipped, the knot tends to be hidden in the twisted plied yarn. The smaller knot improves appearance, reduces grease and oil pick-up, and makes it easier to pass the yarn through the reed of the loom or the knitting needle.

Knots can be tied in the singles and drop ply can be prevented *only* on machines having an individual stop motion for each end.

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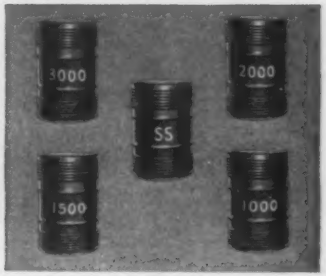
2. ENGINEERING REPORT...
After analysis, S/V engineer prepares report, with recommendation of correct wool oil.



3. PROVED PRODUCTS...
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5. PROGRESS REPORTS...
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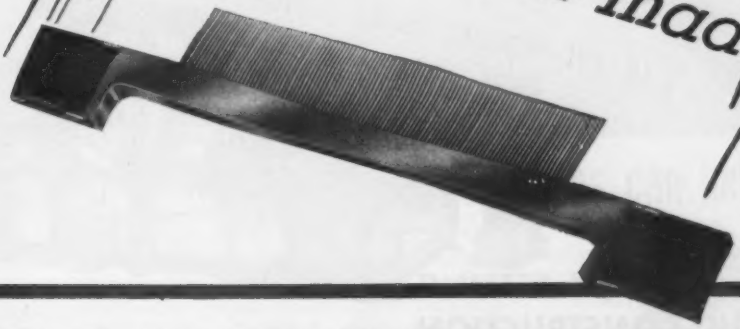

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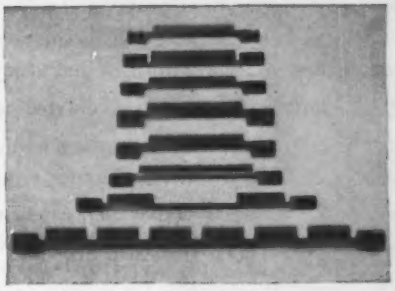

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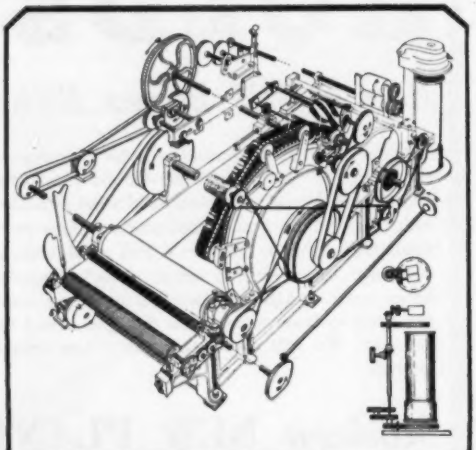

STANDARD SPECIFICATIONS: 40" wide . . . Clothing for your requirements . . . Dish feed plate with fluted steel roller 2¼" dia. . . . Licker-in 9½" dia. covered with inserted saw-tooth wire-8 starts, 36 points per sq. in. . . . Ball bearings to licker-in pedestals . . . Cylinder 50" dia. . . . 106 flats 1⅜" broad . . . Improved flat grinding apparatus for grinding wire and flats from working surface . . . Improved front driving arrangement to flats . . . Doffer 27" dia. . . . Improved fly doffing comb. . . . Calender rolls 4" dia. . . . Coiler and can motions for sliver cans 36" long and 12" or 14" internal dia. . . . Machine cut gears and bevels throughout . . . Strap guide motion with handle bar . . . Pickford's locking motion with patented arrangement to obviate removal of strap fork during cylinder grinding . . . Drive to your requirements . . . Draft constant from lap roller to coiler calenders in the standard model may be 1680 or 2240 as required.

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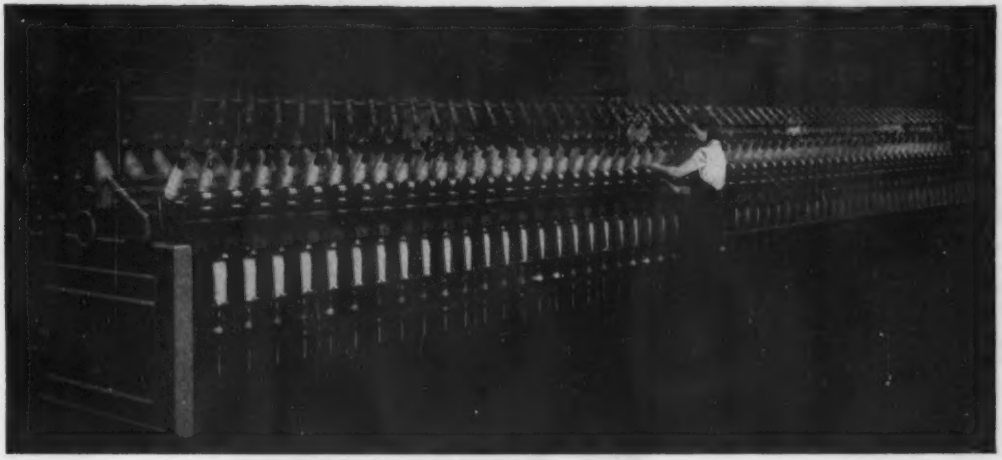
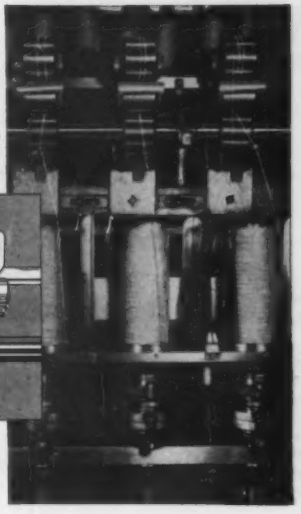
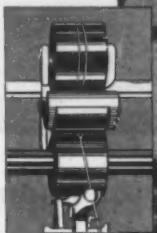


Production of hard twist woolen yarns can be increased.

A decidedly higher production per hour of many woolen yarns, especially hard twists of up to 12 turns per inch, can be expected with Prince-Smith & Stells' new 4 Fold Ring Woolen Twister. The many improvements, from lowering the overall heighth of the entire machine to use of Hoffman roller-bearing spindles and ball-bearing tension pulleys, increases spindles per operator, reduces maintenance time, and speeds production. The photos to illustrate our points were taken at the plant of A. & M. Karagheusian, Inc., while producing friezette yarns for fine Gulistan Carpets.





Note the 2-ply twist running high into the nip of the front rolls.

Six factors contribute to the higher production. (1) The new roller-bearing spindles run at a steady, vibrationless high speed, requiring oiling *only* once every 2500 hours. (2) Ball-bearing pulleys individually control the tension on each spindle tape, reducing power consumption, stoppages and slippage of spindles. As the tape is never off-center, less wear will be observed. Lubrication of these enclosed pulleys is required *only* 3 times a year. (3) A new and improved twin clutch spindle allows for more yarn per package and fewer doffings. (4) There is an independent lifter motion for each side of the machine, permitting various runs and twists to be made simultaneously. (5) Ease of accessibility to the gearing permits quick changes for various runs and twists. (6) Ball-bearing change speed device eliminates changing of the driving pulleys and permits quick alterations in spindle speeds. We will be glad to give you more first-hand information about this versatile Woolen Twister upon request.

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In addition, *dirt wipers* at rod ends keep out all dirt and lint, and *solid steel* heads, caps, and mountings eliminate costly, dangerous breakage.

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Gair Containers and Gair Cartons both possess powerful advertising and selling features... a great stimulus to impulse buying which is a potent factor in today's SELF-SERVICE selling.

So You're Going to "Follow the Sun"?

Well, don't look now, but who are all those people *following* YOU?

"Perish forbid" that you should take that well-earned holiday, without doing yourselves full justice in the Fine Feathers Dept. That's half the fun.

All right, then . . . here you go . . . into the most active, attractive, competitive clothing market in history. And what do you see and hear, everywhere? "Exclusive style . . . unmatched color . . . patterns in a class by themselves . . . new textures, new feels, new drapes!"

But under all these different style-appeals runs the basic theme: "*Highest fabric quality at most reasonable prices.*" Which means simply this: The high-style industry is still based solidly on modern-minded mills whose weaverooms are equipped with high-speed, automatic, convertible C&K Call-Box Looms. And that's why Mr. and Mrs. America continue to get more and more for their clothes-dollar.

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Gulf Lubrication Engineers are experts in petroleum technology—they are familiar with refining processes, properties, and the past performance records of various types of lubricants. They completely understand the effect of different operating conditions on lubricants. And, just as important, they know the lubrication requirements of all types of textile equipment. The application of this knowledge and experience to each individual problem helps reduce maintenance costs and improve performance.

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Fully automatic—eliminates waste and the uncertainties of the "human element." Extends bearing life as much as 17½ times. Seals bearings against dirt and abrasives. Cuts oil consumption as much as 90%. Greatly reduces the number of oils needed.

Here is lubricating progress so major—so far-reaching—as to command the interest of *every* executive concerned with industrial lubrication practices and costs.

You'll marvel that a system so simple—without any moving parts—can bring such a revolutionary change in the lubrication of machinery.

The Alemite Oil-Mist System requires only two simple settings—to control the amount of air pressure, and to regulate the density of the Oil-Mist. Once set, they require no further attention.

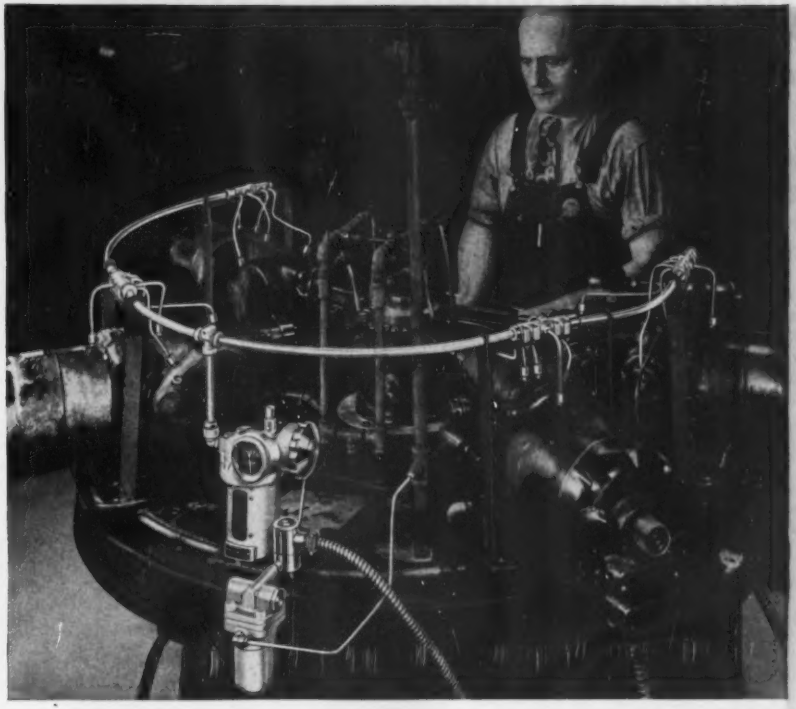
This great new Alemite Oil-Mist System has been proved by plant installations on a wide variety of machines in many industries including steel, coal, food processing, chemicals, metalworking, textiles and woodworking. The results are spectacular—in reduced lubrication costs, reduced maintenance costs, reduced service, reduced "down-time."

Desk-Top Demonstration,

No Obligation—Mail Coupon at Right

The handy coupon attached to your Company letterhead will bring a trained Alemite Lubrication Representative to your office. In a brief yet thorough Desk-Top Demonstration he will answer questions and tell you how Alemite Oil-Mist can provide more efficient lubrication at lower cost than you ever thought possible. Clip and mail the coupon today—to Alemite, Division of Stewart-Warner, 1850 Diversey Parkway, Chicago, Ill.

AUTOMATIC LUBRICATION SYSTEM EVER INVENTED



Here is an example of the many kinds of mechanical motions that can be lubricated by an Alemite Oil-Mist System, *using one oil.* On this automatic drilling machine Alemite Oil-Mist is lubricating 20 points, including cam, quill, worm and gear, reduction gear, gear and rack, gear train, plain and ball bearings. With Alemite Oil-Mist, this machine consumes only 10 oz. of oil during an 80-hour work week. System draws less than ONE cu. ft. of air per minute at 10 psi.

8 Advantages of the Alemite Oil-Mist System

1. Continuous Lubrication

Constantly deposits a fresh, clean film of oil on all surfaces of all bearings in the system.

2. Fully Automatic Lubrication

Eliminates the uncertainties of the "human element." (Refilling the reservoir is the only periodic service required.)

3. Elimination of Guesswork

Every bearing picks up only as much Oil-Mist as it needs. No bearing can be overlooked. None gets over-lubricated.

4. Reduction of Bearing Temperatures

Oil-Mist acts as bearing coolant, can lower bearing temperatures as much as 20°F.

5. Reduction of Types of Oil

Oil-Mist greatly reduces the number of oils that must be stocked, handled, and applied.

6. Elimination of "Down-Time"

All bearings in the system are constantly lubricated while the machine continues to produce.

7. Extension of Bearing Life

Oil-Mist multiplies the life of bearings many times. The life of grinding machine bearings has been extended from 400 to 7,000 hours.

8. Consumption of Oil Cut 90%

The Oil-Mist System usually consumes approximately 1/10 the amount consumed by any other oiling method.

Another Product of STEWART WARNER

Alemite OIL-MIST Lubrication

Mail this coupon today!

Alemite, Division of Stewart-Warner, Dept. J-41
1850 Diversey Parkway, Chicago 14, Ill.

☐ Please have your Alemite Lubrication Representative arrange a desk-top demonstration of Oil-Mist. This entails no cost or obligation on my part.

☐ Please send me information about Oil-Mist by mail.

My name .....

Position .....

Company (leave blank if letterhead attached) .....

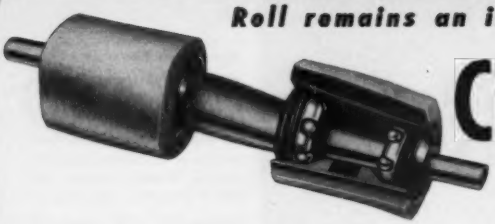
.....

.....

.....

See how quickly and easily you can re-cover this roll WITHOUT DIS-ASSEMBLING

Roll remains an integral unit at all times

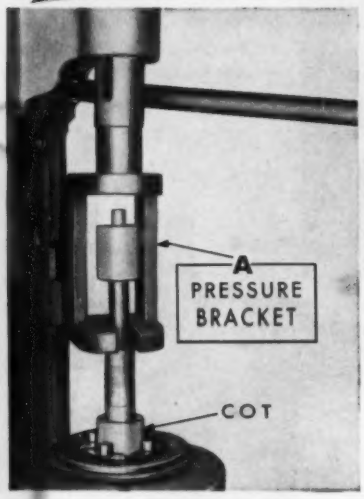


CLIMAX BALL BEARING TOP ROLLS

Patents Pending

Our simple Pressure Bracket (A) fits Armstrong or other cot assembling machines, to apply pressure at center end of shell of Climax Roll.

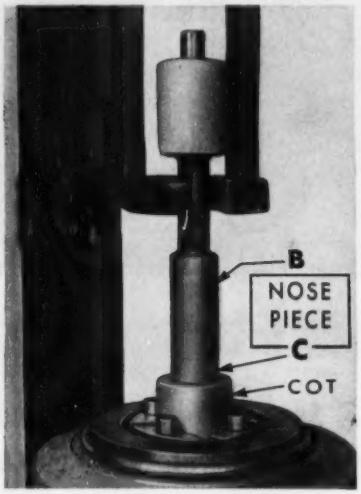
Climax Nose Piece (C), inserted in cot, guides shell (B) into cot as pressure is applied, and prevents glue from entering roll mechanism.



Only CLIMAX

among anti-friction rolls, permits INTEGRAL RECOVERING and INTEGRAL BUFFING—WITHOUT DIS-ASSEMBLING.

(You do not throw away any part of the shell.)



Climax Ball Bearing Top Rolls adopted by

Whitin

MACHINE WORKS

and supplied on Whitin machinery as standard where anti-friction rolls are required. Climax Rolls are available through Whitin Machine Works and all of their agents.

MACHINECRAFT, INC.

21 VERNON STREET, WHITMAN, MASS.

Northern Sales:
Richard K. Butler
P. O. Box 428
Whitman, Mass.

Southern Sales:
Watson & Desmond
P. O. Box 1954
Charlotte, N. C.

Brazil:
Edvard Seelig & Cia, Ltd.
Caixa Postal 3904
Sao Paulo, Brazil

Mexico:
Slobotzky, S. A.
Avenida, Uruguay 55
Mexico, D. F.

Climax Ball Bearing Top Rolls are made for

Cotton System Spinning Rolls for all standard and long-draft systems
Cotton System Roving Rolls
American System Worsted Rolls
French and Bradford Worsted Rolls
Wool Spinning Rolls

Climax Rolls are custom-made to suit your equipment and your weighting requirements.

For more information, write direct or use Reader Service post card.

Rely on your

SWIFT'S SOAP TEAM!

Swift & Company

We're READY with quality soaps for every textile need!

You can always find the right soap for the job in Swift's complete line. Whether you need soaps for dyeing, fulling or scouring or any other specialized need, Swift's Soap Department is at your service. And you'll find that Swift's Soaps for textile uses have maximum uniformity of composition and excellent physical form. You can't buy finer soaps anywhere.

WILLING to continue Swift's research laboratory activities to develop better products for your purpose!

Our technical division is constantly working on textile problems. This means that Swift Soap products always have the quality and effectiveness to help you get better results.

And ABLE to give service from Swift distribution points coast to coast!

You can order any of the fine soaps listed below. Remember—use good soap and enough of it! Good soap promotes economy for you . . . better products for your customers. *Vertex Flakes* • *557 Flakes* • *White Ribbon Flakes* • *Wool Flakes*

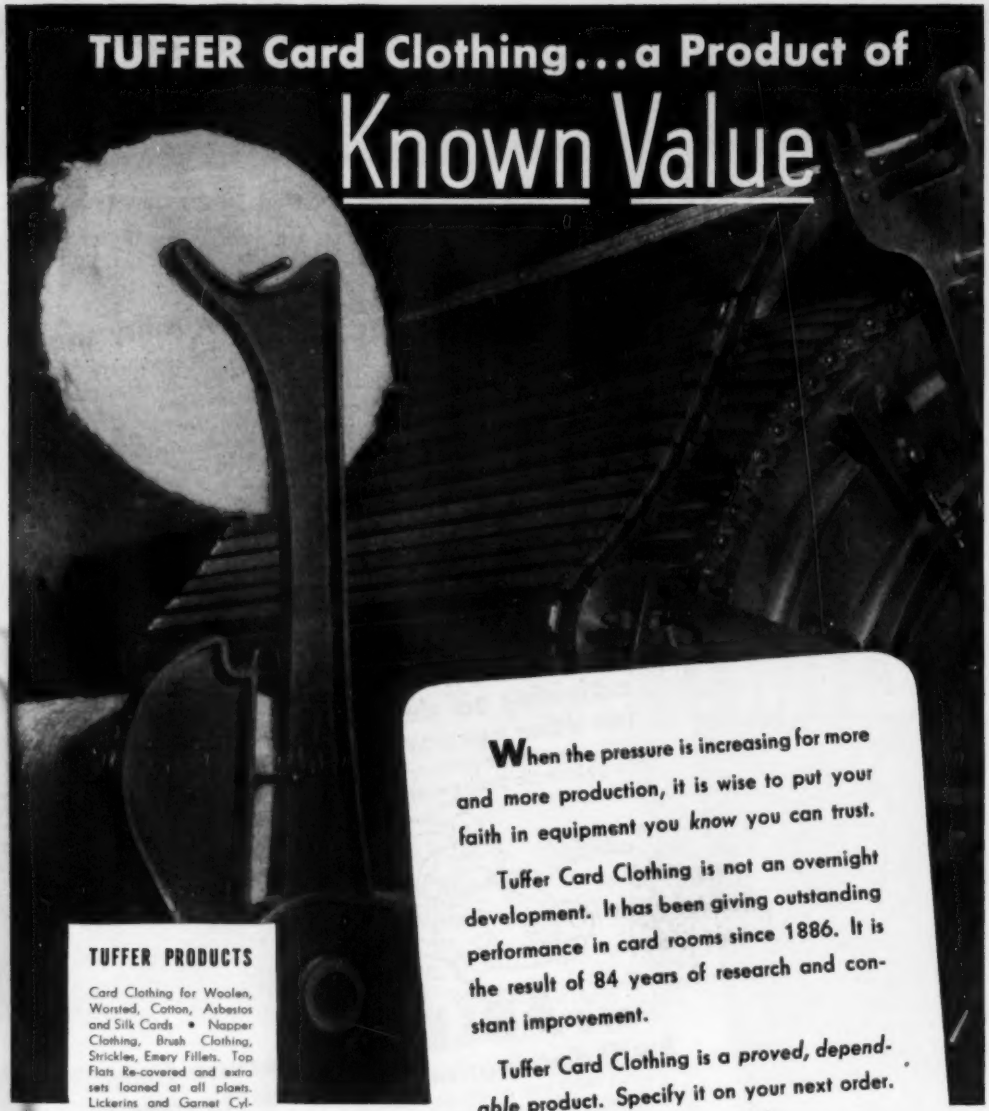
Plus other special formulations to meet your specifications.

Call SWIFT first for soaps

For more information, write direct or use Reader Service post card.

TUFFER Card Clothing...a Product of

Known Value



When the pressure is increasing for more and more production, it is wise to put your faith in equipment you *know* you can trust.

Tuffer Card Clothing is not an overnight development. It has been giving outstanding performance in card rooms since 1886. It is the result of 84 years of research and constant improvement.

Tuffer Card Clothing is a *proved, dependable* product. Specify it on your next order. Let it prove itself on your cards.

TUFFER PRODUCTS

Card Clothing for Woolen, Worsted, Cotton, Asbestos and Silk Cards • Napper Clothing, Brush Clothing, Strickles, Emery Fillets. Top Flats Re-covered and extra sets loaned at all plants. Lickerins and Garnet Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant • Midgley Patented, and Howard's Special Hand Stripping Cards • Inserted Eye & Regular Wire Heddles

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada* A-4

TUFFER CARD CLOTHING

IMPROVES PRODUCTION ALL ALONG THE LINE

Crisp and magnetic colors

can transform a simple frock into a Cinderella Gown.

For colors that make price tags unimportant, always specify

National Aniline Dyes

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WE ADVISE YOU WHEN YOU BUY TEXTILE MACHINERY IN GERMANY
WE PLAN AND ERECT FOR YOU COMPLETE TEXTILE PLANTS FOR

SPINNING
WEAVING **FINISHING**

OUR SPECIALISTS EXSPECT YOU AT THE INTERNATIONAL TEXTILE EXHIBITION IN LILLE/FRANCE

GERMAN TEXTILE MACHINERY MAKERS, UNITED IN OUR COMBINE, SHOW IN LILLE THEIR LATEST CONSTRUCTIONS

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Please visit our stand No. 401, bâtiment „D"
in Lille from april 28th to may 20th 1951

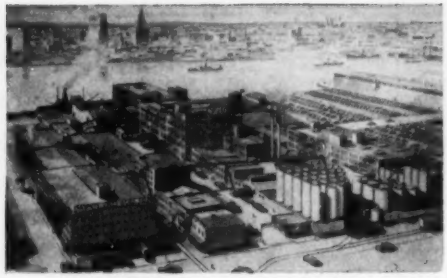
"Whether there be Prophecies, They Shall Fail"

. . . those words, spoken by a redoubtable seer nearly 2000 years ago, have probably never been so pertinent as they are today. For today's most carefully computed prediction may prove completely false tomorrow. *We* certainly are not attempting to prophesy anything, but are simply keeping "our noses to the grindstone" doing all we can to provide the textile industry with top quality chemicals that assure better and more economical processing, and *superior products.*

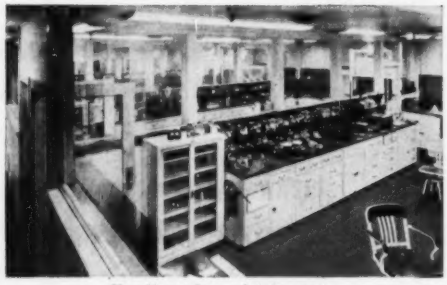
The pictures shown here join with our headline to emphasize this message we would leave with you: *Whatever the uncertainties ahead, you can do no better than call upon the experience, skills and facilities accumulated by Nopco*.*

One of the oldest and most reputable suppliers of processing chemicals, we are prepared to supply you with outstanding Nopco FUA, an extremely versatile and efficient wool oil; Nopco 1656-R, the *one* worsted lubricant that eliminates static; nylon coning oils, dyeing penetrants; synthetic detergents and wetting agents; silk and rayon throwing oils; and the many other textile products for which we are famous.

As you go to work today in the interests of national defense, remember, too, that we are ready to make recommendations and supplement laboratory data with technical aid right in your mill. It will remain our fixed policy to serve you to the best of our ability, *come what may.*



Nopco Headquarters — Harrison, New Jersey



New Nopco Research Laboratories

Evaluating the effectiveness of warp and filling size formulated to give specific weaving results.

Preparing a sample of processing oil preparatory to running exacting laboratory tests.

NOPCO
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NOPCO CHEMICAL COMPANY
HARRISON, NEW JERSEY
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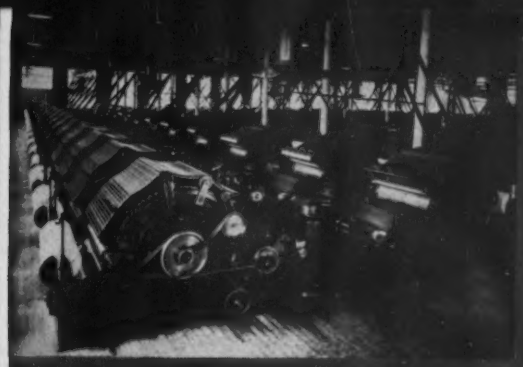
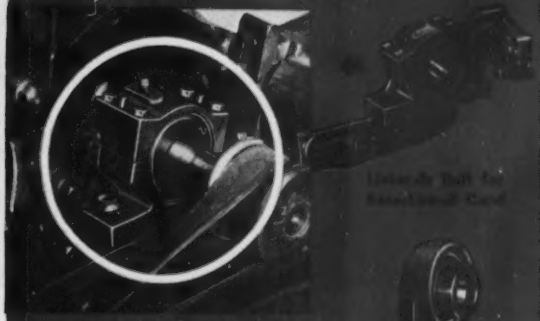
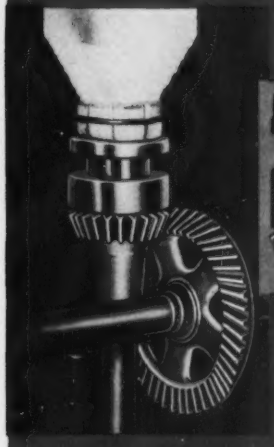
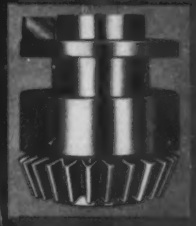
*REG. U. S. PAT. OFF

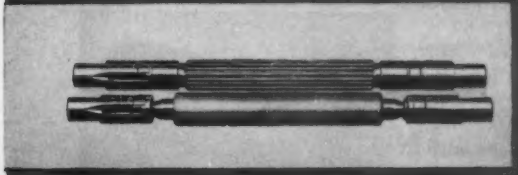
For more information, write direct or use Reader Service post card.











TURNING POINTS
to greater efficiency in Carding Operations

If manpower shortage is a threat, perhaps the wider use of ball bearing equipment can ease this situation for you. In the modern card room where original settings must be maintained for continuous uniform production on lappers, combers, drawing frames and roving frames, Fafnir Ball Bearing Textile Units are making an important contribution to increased efficiency. For example, a lapper will make a better, firmer lap if the calender racks are fitted with anti-friction rollers. It will make an evener lap if the apron and evener mechanism is equipped with anti-friction bearings.

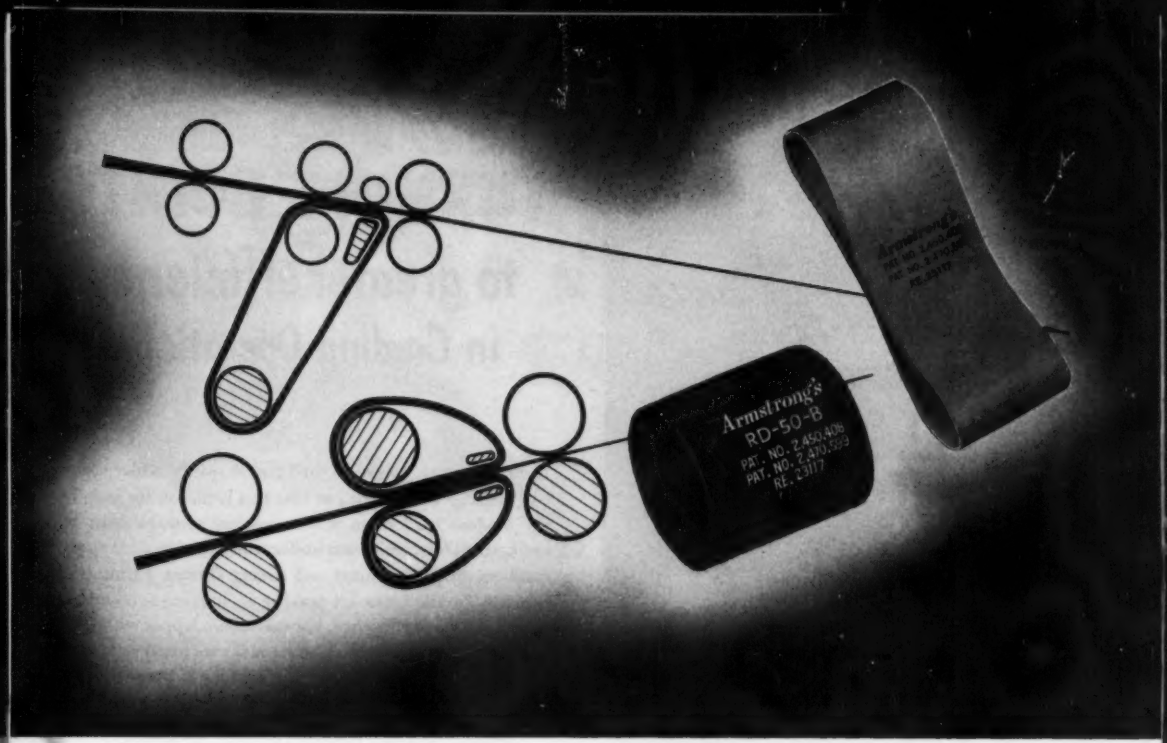
Turn to Fafnir Ball Bearing Units for the answer to how to increase the efficiency of your carding operations. Both standard and special textile units are available for this textile process. Many units feature the famous Fafnir Wide Inner Ring Bearing with self-locking collar . . . easiest of all to install. Write for catalog. The Fafnir Bearing Company, New Britain, Conn.

Other FAFNIR UNITS for Carding

- Licker-in Unit for Whitin Card
- Pillow Block for Roving Frame Bobbin Gear Drive Shaft
- Doffer Unit for Whitin Card
- Hanger Box with Grease Trap for Card and Weave Room Service
- Bearing Unit for Roving Frame Bobbing Gear

FAFNIR
BALL BEARINGS

MOST COMPLETE LINE IN AMERICA



Single or double apron equipment requires fewer apron replacements when it is equipped with Armstrong's Accotex Aprons.

·How to LOWER APRON COSTS·
on your long-draft frames

You can expect six years or more of continuous spinning from Armstrong's patented Accotex Aprons

Many mills have found that the long life of Armstrong's Accotex® Aprons can substantially reduce apron costs. On their Casablanca frames they use NO-700 Accotex Aprons, and on their single-apron frames they use Armstrong's extra-flexible NO-750 Accotex Aprons.

Experience varies slightly from mill to mill, but these aprons can be expected to give up to six years and more of efficient service. One Georgia mill, for example, used the same set of NO-700 Accotex Aprons continuously for eight years. Service like that means a big saving in apron replacement expense.

The secret of this long life is the carefully engineered construction of Accotex Aprons. As shown in the diagram below, the Accotex Apron is made in three special-purpose layers. The seamless inner layer is a synthetic rubber that can withstand abrasion—ten million trips over the nose bar, for instance, during six years of normal two-shift operation on 16's.

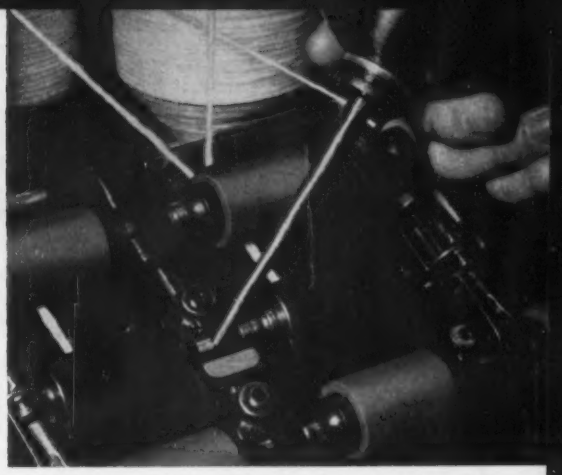
The outer layer of an Accotex Apron is also seamless synthetic rubber . . . treated by a patented process that enables it to withstand years of service without cracking or developing rough spots.

Between these seamless rubber sleeves is a sturdy cord interliner that absolutely prevents stretching or curled edges. Vulcanized together, these three layers have all the qualities needed for an efficient, economical long-draft apron.

No matter what type of long-draft equipment you use in your mill, you can get Accotex Aprons that will help you cut your apron replacement expense. Call your Armstrong representative for samples or write to the Armstrong Cork Co., Textile Products Department, 8304 Arch Street, Lancaster, Pa.

Armstrong's textile products are available for export.

SATIN FINISH. Accotex Aprons are ground to the exact thickness you specify and finished to satin smoothness by a special process developed and patented by the Armstrong Cork Co. Accotex Aprons never roughen in service.



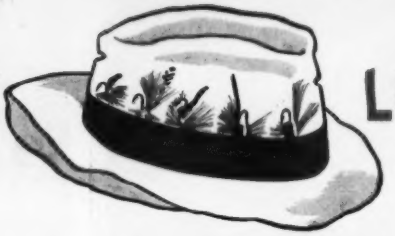
UNAFFECTED BY OIL, TEMPERATURE, OR HUMIDITY. Oils, dyes, and solvents have no effect on Armstrong's Accotex Aprons. They operate efficiently at any mill temperature, and they won't sweat.

SEAMLESS. Smooth continuous layers of Accotex rubber on both inside and outside of Accotex Aprons prevent irregular slip-roll action. These tough wearing surfaces will not crack or break even after six or more years of service.

SUPERIOR FLEXIBILITY. Armstrong's NO-750 Apron is made to have the extra flexibility and wear resistance needed on single-apron frames. They hug the nose bar closely to insure the necessary smooth slip-roll action.

ARMSTRONG'S ACCOTEX APRONS

one of Armstrong's complete line of textile mill supplies

WHY SO MANY  LURES?

A practical idea for users of STEAM TRAPS

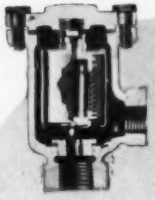
Many readers of this publication can remember when there was only one kind of steam trap and when one trap to a room or a building was enough. As long as the trap "tilted," everybody was happy.

The science of steam trapping has come a long way since then but we still have with us the engineer who tries to "standardize" on one type of trap for the whole plant and the steam man who doesn't realize that the cost of Sarco traps is so reasonable today that it pays to put one on each coil.

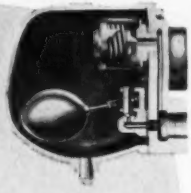
One thing is certain. You will need several types of steam traps to lure the utmost out of your fuel and your production equipment. Sarco makes five distinct types of steam traps and is in a position to recommend the right type for each job.

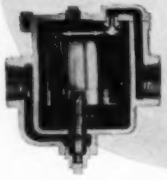
And you can't tell by the cost. An inexpensive type of trap may be the best and the most expensive trap the worst type you could use on any particular job. You can get the right trap the first time for each job by asking the Sarco Specialist near you or writing for our Selection Chart No. 1600.

THERMOSTATIC TRAP



FLOAT-THERMOSTATIC TRAP





BUCKET TRAP

LIQUID EXPANSION TRAP

313

SARCO SAVES STEAM

SARCO COMPANY, INC.
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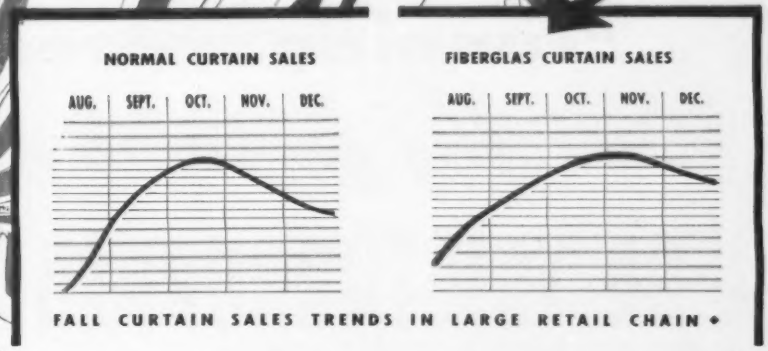
IMPROVES PRODUCT QUALITY AND OUTPUT

ever see curtains move like this?



FALL CURTAIN SALES TRENDS IN LARGE RETAIL CHAIN •

when they're FIBERGLAS* they're always in season

Here's a fine example of how textile manufacturers used the characteristics inherent in Fiberglas Yarns to give customers new buying motives. Women are buying these curtains regardless of season because in addition to beauty, Fiberglas curtain *performance* saves them time and labor.

By combining imagination with textile know-how, weavers, finishers, curtain manufacturers and Owens-Corning Fiberglas all cooperated to create this new product and make it an outstanding success.

Fiberglas Yarns have *dimensional stability, non-combustibility, excellent electrical properties, high tensile strength, resistance to mildew and rot* and *lasting beauty*. No other fiber has such a combination of properties. Why not combine *your* imagination with ours and discover how to use them to your advantage. Our technical staff is at your disposal. Write Owens-Corning Fiberglas Corporation, Textile Products Division, 16 East 56th Street, New York 22, N. Y.

To satisfy military and civilian demands for Fiberglas Yarns, substantial additional facilities are under construction. We believe this increase in production will help meet your future needs.

Guaranteed by Good Housekeeping

*... are trademarks of Owens-Corning Fiberglas Corporation which ... Fiberglas yarns and ... fabrics woven ... such yarn, but does not weave or manufacture finished products.

OWENS CORNING FIBERGLAS Yarns

Announcing—

two new Thorobred "running mates"—

the amazing new

DAYTON THOROBRED PICKERS

that last up to 200% longer!

Now, as the result of 12 years of product improvement and development, Dayton introduces the greatest advance in picker performance since rubber pickers were introduced to the textile field by Dayton.

These two new Dayton Pickers—the "Premium" and the "Super"—combine more durable fabrics and compounds, with these improved design features: rounded front edges that eliminate hanging filling; narrow back that permits free non-wear on lay-in strap; flared bottom that makes picker stick easier to apply.

Intensive testing in laboratory and mill preceded announcement of these new pickers. Tested against all other makes of pickers, they consistently outlasted them, often as much as two times! Cut down-time in the picking operation by the same amount, increased cloth production. Shuttles lasted longer, too, because these pickers run cooler. For high-speed looms as well as older types.

Turning out millions of new fashions in fig-leaves is a big, year-round job for the mills of America. Dayco and Thorobred textile machinery products help turn them out economically for the consumer, profitably for the mill-man.

The Dayton Thorobred Premium Picker

is the pick of the picker crop—the absolute ultimate in quality. Its silvered back is your assurance of sterling picker performance.

The Dayton Thorobred Super Picker

will "out-pick" any ordinary picker on the market. Outstanding in the regular field. Look for its red back—your guarantee of super performance.

Dayton Drop-Box Pickers are "three-ways" better

Improved at the three vital points of picker operation: Extra-hard at the spindle hole; firm but with "give" around the picker stick hole; soft for shock-absorption at the shuttle contact area. Available in reversible and non-reversible types.

The Dayton Thorobred Lug Strap

can take millions of flexings, millions of picker stick blows without "fatigue," without stretching. The built-in cushion protects cam points and picker sticks. Temperature and humidity changes won't affect them. (Did you see the recent tests of this Lug Strap against three common types of strap? The Thorobred outlasted every one!)

If you would like to see the last word in modern high-speed pickers, ask your Dayton Distributor or salesman, or write: The Dayton Rubber Co., Textile Division, Woodside Building, Greenville, S. C.

Dayton Rubber

Textile Products for Better Spinning and Weaving

Still on Top!

with the many exclusive performance features that have made

ECLIPSE BOBBIN HOLDERS

THE FAVORITE!

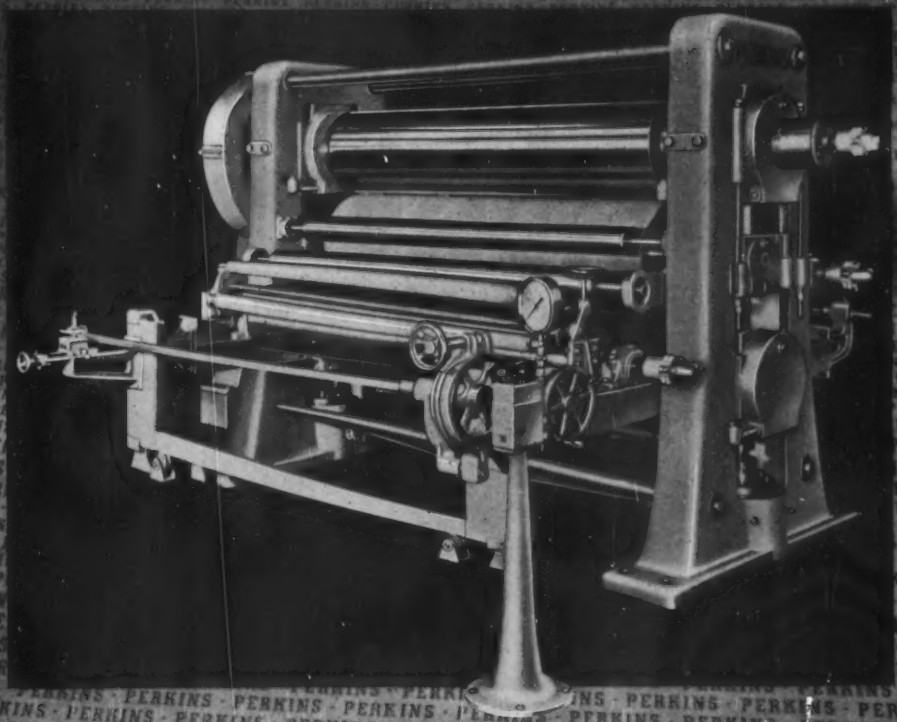
The many exclusive features built into the Eclipse Bobbin Holder have made it the favorite of many leading textile organizations. They have found in actual operation that the Eclipse Bobbin Holder is outstanding in every way, and that the Eclipse reputation for basic quality and goodness is well deserved. If you are interested in modernizing your present plant equipment, you will surely want the finest—and the finest means Eclipse. Investigate today by writing or calling the Eclipse Machine Company direct.

These Features Mean Eclipse Superiority

1. Completely replaces wooden skewers.
2. Ball bearings minimize friction, resulting in uniform quality of roving.
3. Permits less twist. Tests indicate yarn of more even texture.
4. Creel boards easily cleaned. Overhead suspension leaves open creels. Blowers more effective.
5. Better spinning of spun rayon.
6. Easier creeling; less physical effort and fewer motions required.
7. Improved brake attachment prevents overrun and backlash.
8. New cadmium plated and stainless steel balls more rust resistant.
9. Time-tested product—holders in operation for over ten years.
10. Easy to install; practically no upkeep.

ECLIPSE MACHINE DIVISION of Bendix
ELMIRA, NEW YORK

Export Sales: Bendix International Division, 72 Fifth Avenue, N. Y. 11, N. Y.



PERKINS POINTS WITH PRIDE

to this new three-roll 83" face 60-ton Hydraulic Rolling Calender. Top and bottom rolls, chilled iron. Intermediate roll, cotton. This calender is equipped with variable speed drive, pre-heating drum, cooling drum, three-bar tension group and a let-off which is adjustable laterally and horizontally.

B. F. PERKINS & SON, Inc.

HOLYOKE, MASS., U.S.A.

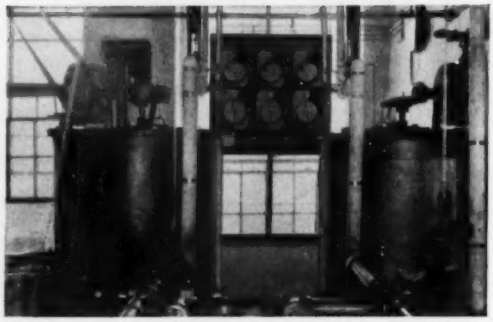
LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

NOW Taylor your slasher room

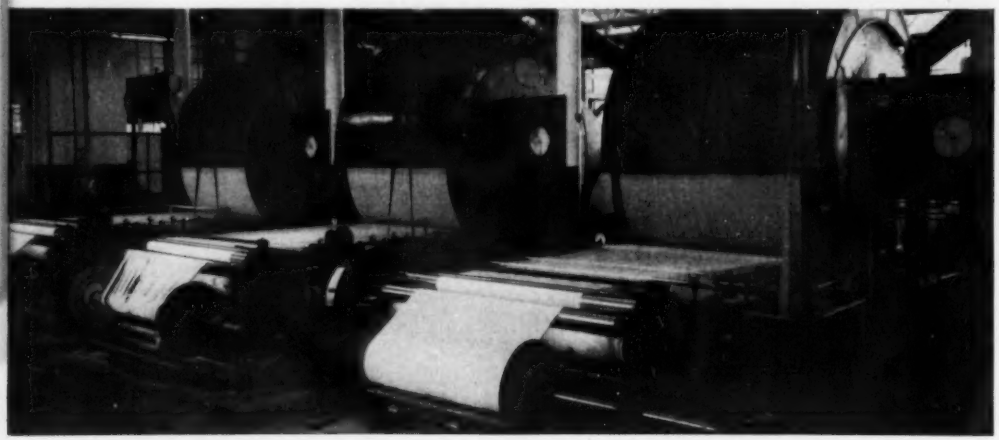
For many years Taylor has supplied the Textile Industry with automatic controls for size cooking, storage kettle temperature, size box level and temperature, and slasher cylinder temperature and pressure control.

Optimum slashing efficiency is **now** possible with this complete Taylor control—plus Taylor's new Viscosity Recorder (opposite page) that warns you of improper slashing before it even starts!

Because Taylor grew up with the Industry, this complete Taylor control for your slasher room is another logical step forward. And naturally, we can supply you with measuring and controlling instruments that will cut your costs from the first slashing phase through the last job in your mill. Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada. *Instruments for indicating, recording and controlling temperature, pressure, humidity, flow and liquid level.*

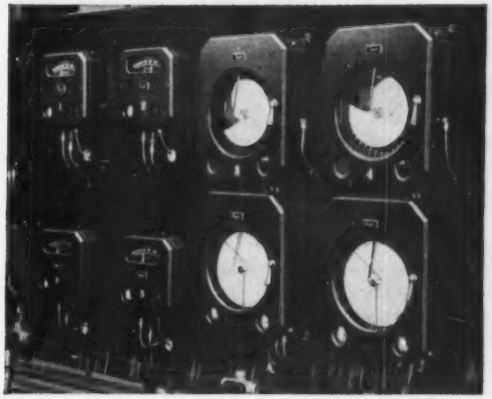


Taylor Size Cooking Kettle Control—Consistently uniform size cooking! Taylor Fulscope* Time Schedule Controllers will reproduce your ideal cooking schedule time after time. Automatically control both time and temperature once operator pushes start button.



Taylor Slasher Cylinder Control—Recording Fulscope Controllers (right side of panels) assures proper setting of size on warp; correct laying and binding in of warp fibres; retention of proper amount of moisture in warp; less dry size shedding; no steam consumption over actual requirements.

Instruments give complete control!



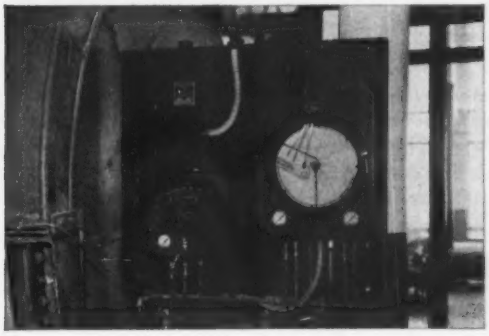
Taylor Size Storage Kettle Control—Taylor 86R Fulscope Indicating Temperature Controllers (left side of panel) automatically maintain the set size temperature. They assure uniformity by holding size at a controlled temperature which prevents excess breaking down.

FRONT VIEW

REAR VIEW

The New Taylor Size Viscosity Recorder—Records changes in size viscosity—shows up improper slashing before it starts! A simple packaged unit that continuously records size viscosity directly in centipoise. Detects any variations before they can start trouble. Writes an easy-reading record in direct viscosity units. *Send for details!*

*Registered Trade-Mark



Taylor Size Box Temperature and Level Control—Indicating Controller (lower left) automatically controls size box temperature, assuring correct, uniform temperature of size before it's put on warp. Electronic Level Control (upper left) assures uniform deposit of size on yarn by accurately maintaining level of size in box.

Taylor Instruments

MEAN

ACCURACY FIRST

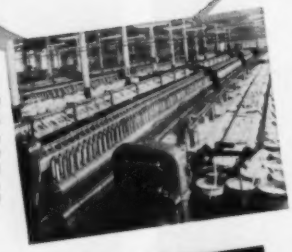
IN HOME AND INDUSTRY

H&B ROVING MACHINERY

ailored to fit your needs

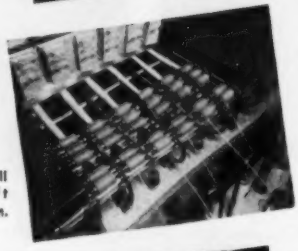
H & B Roving Machinery, whether High-Draft or regular, has been developed to a high degree of efficiency over a period of years and today the many H & B mill installations reflect the industry's widespread acceptance of this modern card room equipment.

The H & B High Draft Roving System is manufactured with either a four or five-roll drafting arrangement and each is suitable for a wide range of hank sizes. The drafting system contains positive roll weighting by means of a streamlined saddle and weighting assembly. Drafts are easily distributed — intermediate draft adjustments can be made without changing the overall draft. It is now common knowledge that high-draft roving cuts costs by eliminating from one to three operations.



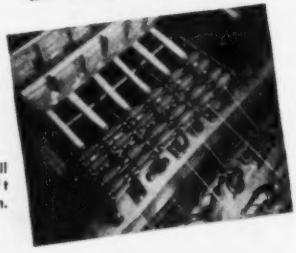
Installation of H & B 8 x 4 and 9 x 4½ High-Draft Slubbers — all suitable for a wide range of hank sizes.

With the advent of super high-draft spinning, however, the trend has been to larger and larger roving packages. H & B can readily and easily conform to the trend by offering its three line, 12 x 6 slubber or its four or five-roll, 10 x 5 slubber, depending on the mill organization. For example, with H & B's new Casablancas Super High-Draft Spinning System, certain counts can be spun from .60 or .75 hank single in the creel. This particular hank size can be made on a three-roll conventional slubber.



H & B 5-Roll High-Draft Roving System.

Whether conventional or high-draft, the same excellent design, materials and quality workmanship are all included in the manufacture. Each machine is specified and built to conform to a mill's organization plan . . . tailored to fit your needs.



H & B 4-Roll High-Draft Roving System.

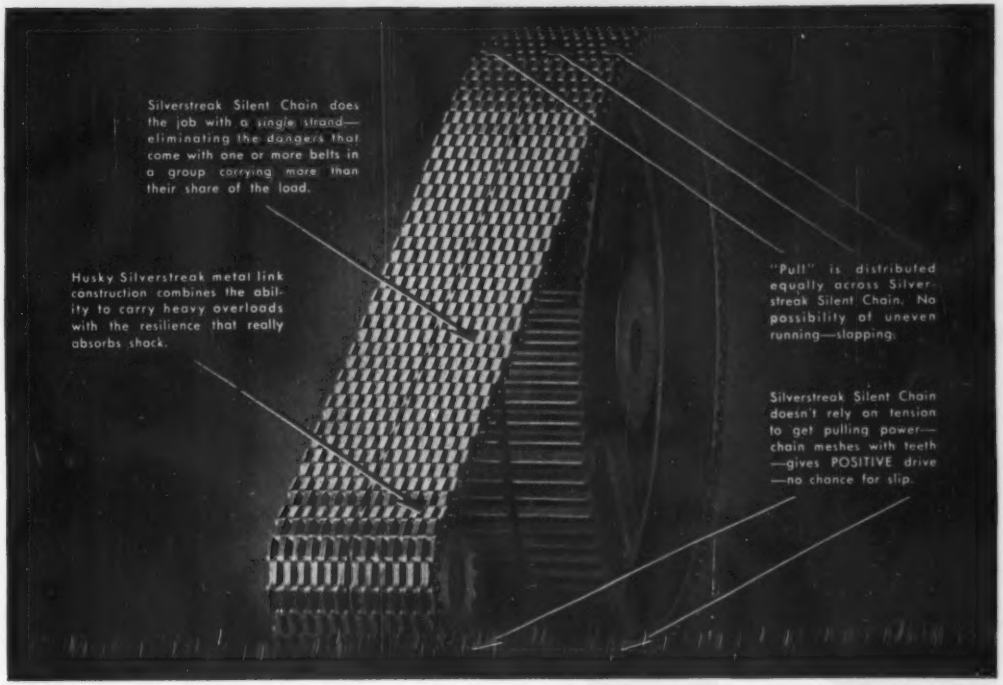
The H & B High Draft Slubbers feature a patented Bakelite Scroll Condenser. This Condenser prevents the flaring and spreading of the fibers and simultaneously folds all short fibers into the center by condensing them into a compact sliver. This is accomplished without disturbing parallelization and sufficient false twist is inserted to assure better control in the final drafting zone. No other High Draft Slubber on the market today offers better fiber control or flexibility.

H&B AMERICAN MACHINE CO.

FACTORY, EXECUTIVE OFFICES AND EXPORT DIVISION • PAWTUCKET, R. I., U. S. A.
Branch Offices: Atlanta, Ga. — 815 Citizens and Southern National Bank Bldg.
Charlotte, N. C. — 1201 Johnston Bldg.
Greenville, S. C. — 1510-11, Woodside Bldg.

Builders of MODERN TEXTILE MACHINERY

Get full rpm transmission...


Silverstreak Silent Chain does the job with a single strand—eliminating the dangers that come with one or more belts in a group carrying more than their share of the load.
Husky Silverstreak metal link construction combines the ability to carry heavy overloads with the resilience that really absorbs shock.
"Pull" is distributed equally across Silverstreak Silent Chain. No possibility of uneven running—slapping.
Silverstreak Silent Chain doesn't rely on tension to get pulling power—chain meshes with teeth—gives POSITIVE drive—no chance for slip.

LINK-BELT Silverstreak Silent Chain Drives

Slip-proof
Slap-proof
Shock-proof

TAKE the proven road to increased production — through the best in high-speed power transmission. You'll find Link-Belt Silverstreak Silent Chain Drives are 98.2% efficient. With normal maintenance, you have a *positive* drive that runs for years and years.

And note this important point — on extremely short centers Silverstreaks lose none of their efficiency. What's more, reduction ratios as high as 10-to-1 are frequently used. Both of these Silverstreak features save you valuable space.

One test will prove to you why thousands of production-minded engineers have standardized on Link-Belt Silverstreak Silent Chain Drives.

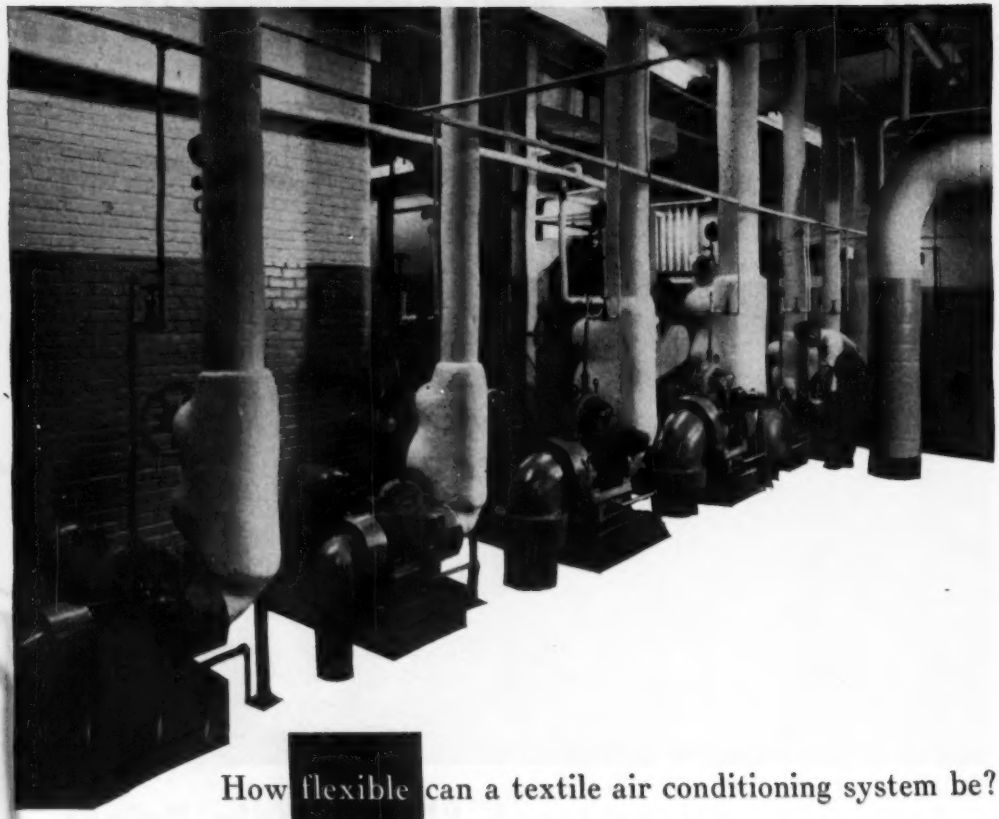
LINK-BELT

12,200

SILVERSTREAK SILENT CHAIN DRIVES

LINK-BELT COMPANY: Chicago 9, Indianapolis 6, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in principal cities.

For more information, write direct or use Reader Service post card.



How flexible can a textile air conditioning system be?

The answer to that question is another question. How flexible should a textile mill be?

With today's synthetic fibers and their different humidity requirements, we'd say plenty flexible. After all, you may want to run rayon today and nylon tomorrow. Or you may want to run different fibers in different parts of the mill.

Robbins Mills in North Carolina can do that. They can do it because their Carrier Air Conditioning system was designed for flexibility. In the Robbins Mills are nine separate air conditioning systems. All of them are supplied with chilled water by a Carrier Centrifugal Refrigerating Machine.

And there are nine separate pumps, like the ones in the photograph, each pumping chilled water to a separate air conditioning system. The temperature of the water is regulated by a special, automatic dew-point control. So that Robbins Mills can change the relative humidity for any system . . . and still maintain the same constant temperature throughout the mill.

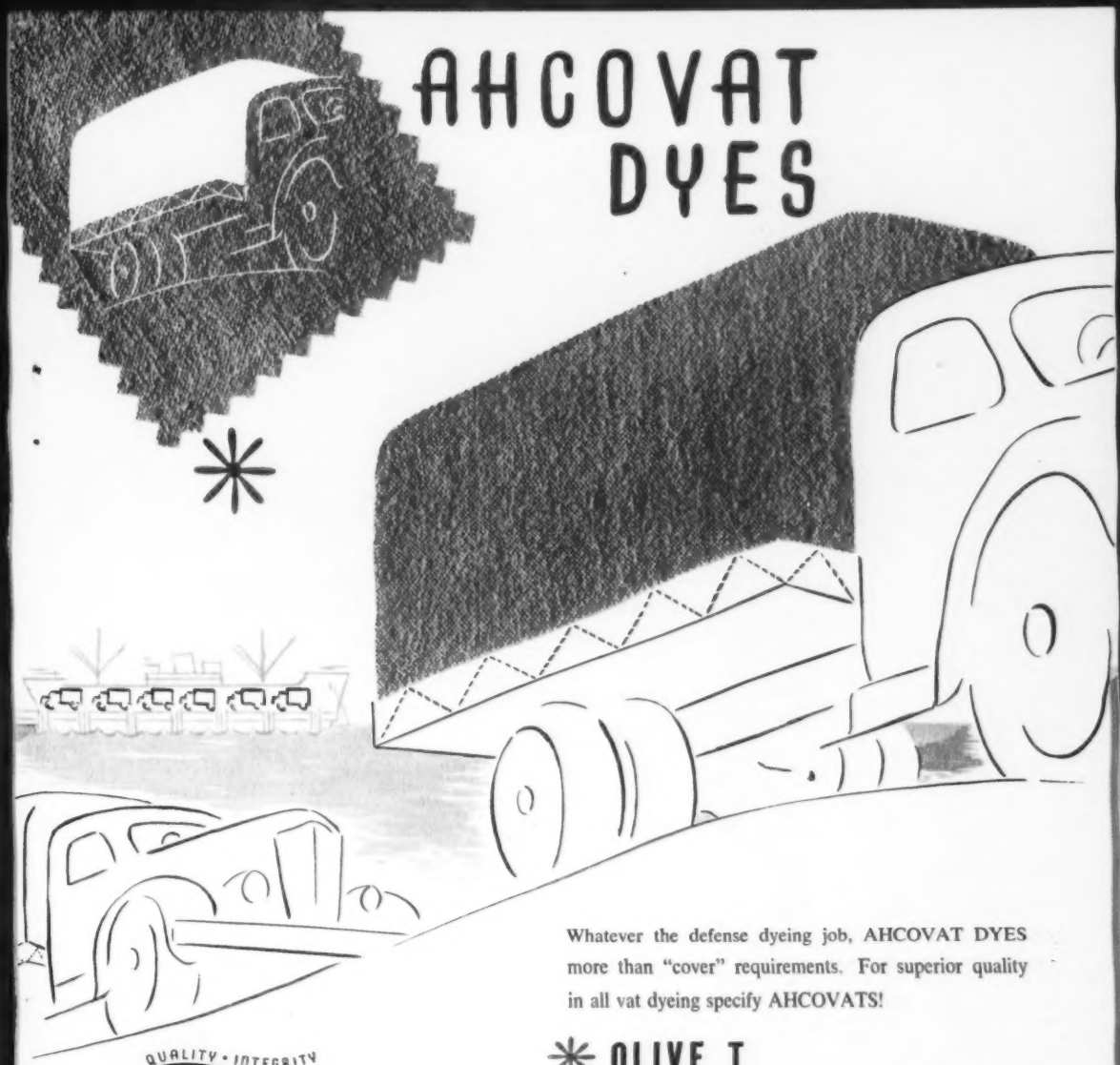
There's a new Robbins Mill in the building now. And it's going to be air conditioned by just the same sort of Carrier system. We think that's pretty good evidence that Robbins Mills think Carrier knows textile air conditioning. Carrier Corporation, Syracuse 1, New York.

Carrier

Air Conditioning • Refrigeration • Industrial Heating

For more information, write direct or use Reader Service post card.

AHCOVAT DYES



Whatever the defense dyeing job, AHCOVAT DYES more than "cover" requirements. For superior quality in all vat dyeing specify AHCOVATS!

✳ OLIVE T

An excellent flattening agent. Assures level dyeing and high light fastness in pale shades. Can be dyed by any method.

Ask for complete technical information and shade card.

ARNOLD, HOFFMAN PROVIDENCE RHODE ISLAND

Associated with
Imperial Chemical Industries, Ltd.
(DYESTUFFS DIVISION)
England

ARNOLD, HOFFMAN & CO., INCORPORATED • EST. 1815 • PROVIDENCE, R. I.

Offices: Charlotte, Cincinnati, New York, Philadelphia, Providence
Plants: Charlotte, N. C. Cincinnati, Ohio Dighton, Mass.

Ashworth

CARD CLOTHING

Atlanta, Charlotte, Dallas, Fall River, Greenville, Philadelphia . . . so reads the roll of Ashworth repair shops. Located in 6 different textile centers, these shops are set up to furnish prompt and efficient repair service, top flat reclothing, lickerin rewinding, etc.

These convenient facilities are, however, but one aspect of the picture. For Ashworth also has 4 widely separated factories for making high quality card clothing and associated products. This means a continuous source of supply at all times.

Then, too, there's the matter of Ashworth Free Surveys. To increase your card efficiency, they're worth asking us about — today.

PRODUCTS AND SERVICES . . .

Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for All Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire, Lickerins and Top Flats Reclothed.

4 FACTORIES . . . 6 REPAIR SHOPS . . . 7 DISTRIBUTING POINTS

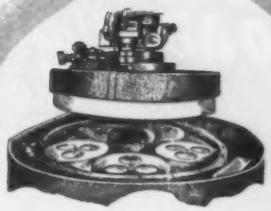
ASHWORTH BROS., INC.

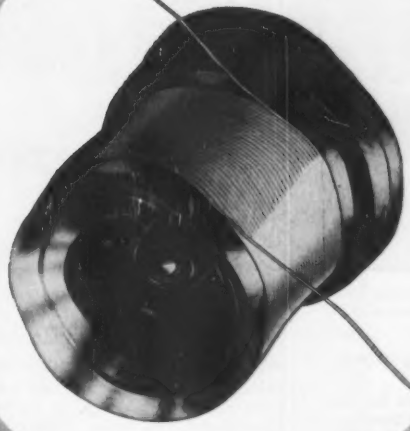
American Card Clothing Co. (Woolen Division)

Fall River *†‡ Worcester *‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)

Factory* Repair Shop† Distributing Point‡

giant steps in industry





Above, you see a mechanical lapper . . . a machine that produces tools whose surfaces are accurate beyond imagination . . . so smooth, so flat, they can be measured to a few millionths of an inch. An industrial genie that makes the tools that make modern production lines possible! *At your left* you see an equally remarkable mechanism . . . Industrial Rayon Corporation's "thread advancing reel," an important element of the renowned Continuous Spinning Process . . . herald of a new day in the rayon industry.

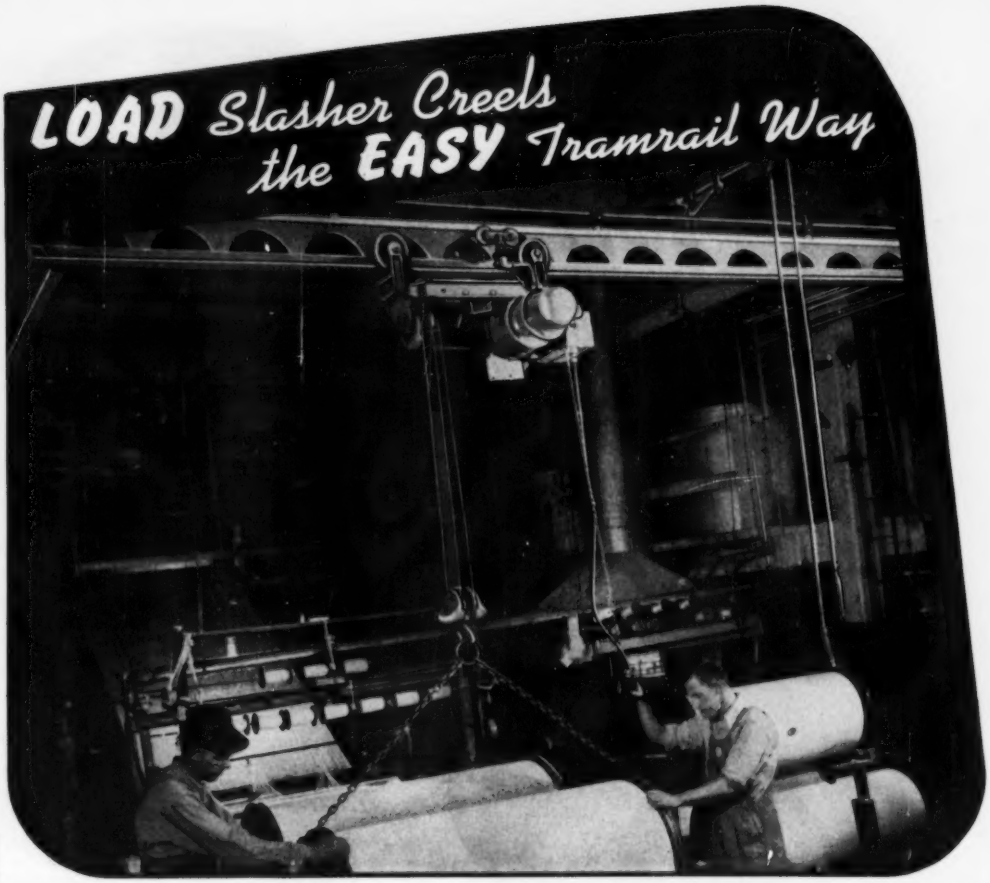
On this reel I R C produces a virtually flawless yarn in miraculously little time. Yarn so uniform it set a new standard of quality for mills, cutters, converters throughout the entire world. A process so valuable it has been adopted by producers in Great Britain, France, Switzerland and other leading countries. A process so far ahead of its time, that today, 12 years after its introduction, it still remains unsurpassed.

I R C is proud to have created this spectacular "thread advancing reel." If and when another rayon miracle appears . . . chances are, I R C will have a hand in its development!

IRC Industrial Rayon Corporation

Cleveland, Ohio · Sales Office: 500 Fifth Avenue, New York 18, N. Y.

LOAD Slasher Creels the EASY Tramrail Way



It is so simple and fast to load beams into slasher creels with Cleveland Tramrail, it is no wonder that so many mills — large and small — are rapidly swinging over to this modern way of handling.

In jiffy time a heavy beam can be set into a creel with minimum loss of production from slasher shut-down. The same hoist that inches the beam carefully into position usually selects the beam out of storage. Thus delivery is direct and all time-consuming rehandling is eliminated.

Most likely, there are installations of Cleveland Tramrail near you, that you can visit and study. However, the most effective way of demonstrating its possibilities is to select a good test job in your own plant and put in an installation of Cleveland Tramrail. Then carefully study the equipment and make accurate record of the results. In this manner, you can determine first hand whether or not you can profit by its use.

GET THIS BOOK!

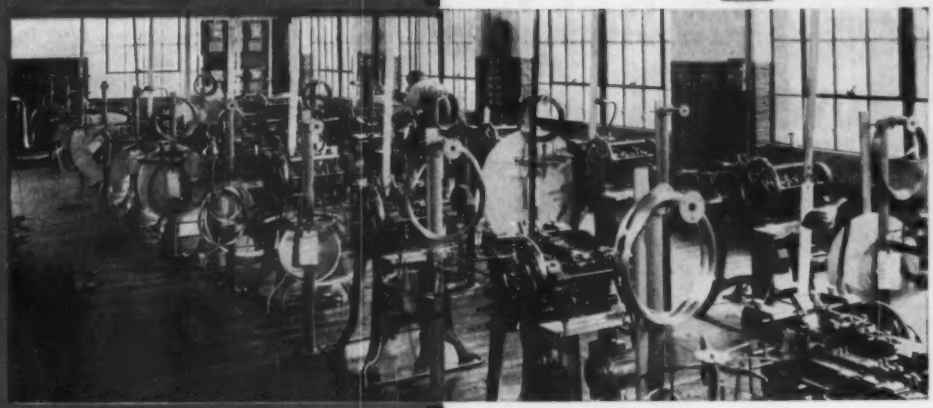
BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy.

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
8456 EAST 287th ST. WICKLIFFE, OHIO

CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

For more information, write direct or use Reader Service post card.

Corner of floor showing a few of our [redacted] setting machines.



CARD CLOTHING

...made on NEW, modern machines!

DUESBERG-BOSSON CARD CLOTHING CO.

SALES OFFICE AND FACTORY

JEFFERSON • MASSACHUSETTS

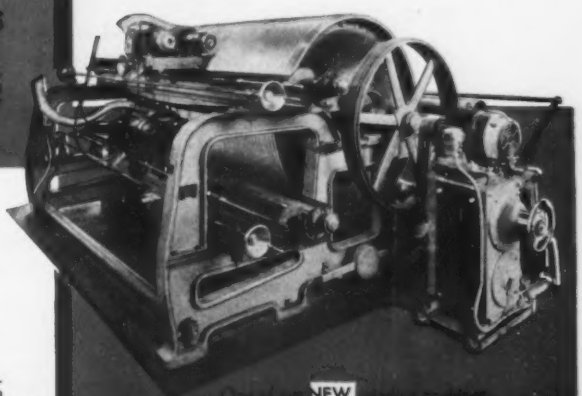
Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards, Brush and Napper Clothing for all types of Napper Machinery, Card Clothing for Special Purposes.

Here is a completely new plant for manufacturing card clothing. The latest precision-built machines guarantee uniformity of height, pitch, and bend on all specifications. The grinding machine will definitely grind to a 1/1000-inch tolerance. It is equipped with variable speed drives, and the traveling tables are of extremely rigid construction to eliminate vibration. The grinding wheels are individually motor driven.

Furthermore, all of the machine parts that have to do with the forming of the staple are **Carboloy-faced.** This means unchanging accuracy of the forming mechanism, and continuing perfection in the shape and dimensions of the wire staple.

By using only extremely high grade wire, uniformly tempered and drawn, and set into the proper foundation according to the mill's requirements, it has been predicted that Duesberg-Bosson card clothing will come to be accepted as the standard of the industry.

Your inquiries are invited.



DB

All types of comber aprons for the worsted trade. Woolen condenser aprons and tapes. Belting, both round and flat. Sole Distributors, U. S. and Canada, for H. Duesberg-Bosson Fils fine leather specialties, manufactured in Verviers, Belgium.

Dyeing Raw Stock The Modern Way
AT
GLOVERSVILLE KNITTING COMPANY

Gloversville Knitting Co.
Gloversville, N. Y., manufacturer of gloves, mittens and knitted fabrics is one of scores of mills which dye all types of raw stock the modern way — with Fleet Line Stock Dye Kettles.

This machine is truly modern because it's the last word in efficiency, as follows: —

1. Stainless steel throughout.
2. Single unit construction minimizes number of outside pipes, reduces upkeep and circulating friction.
3. Pump, submerged in dye liquor, requires no packing.
4. Vertical motor, on top of machine, is protected from water and is easy of access.
5. Stock, undisturbed during dyeing operation, comes out in original open, lofty condition.
6. Stock unloaded in cheese form in minimum time by means of false bottom, center post and electric or air hoist.
7. Equipped with indicating panel board, containing temperature, pressure and depth gauges.

Let us figure on your stock dyeing requirements

RIGGS AND LOMBARD, INC.
FOOT OF SUFFOLK STREET, LOWELL, MASS.

The Fleet Line — A complete line of modern equipment to successfully handle present day wet-finishing, carbonizing and dyeing requirements.

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IN 1951...more than ever...

it pays to use America's leading

one-coat

Interior Maintenance Paint!

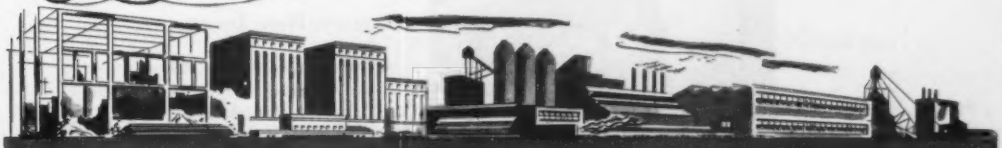
America's First and Finest

COLOR SERVICE

to make your painting pay extra dividends at no extra cost

A service comprising detailed color suggestions tailor-made for you by trained consultants from Glidden Color Laboratories with over 21 years of experience. These comprehensive color harmony plans for interior painting based on Glidden's famous Sight Perfection Program pay important extra dividends! For complete information about this free service, write Dept. C-4.

The rearmament program demands heavy duty wall paints that cover in just one coat and give more years of service. Glidden SPRAY-DAY-LITE and BRUSH-DAY-LITE do both . . . saving you critical time, labor, material and money. Their high light reflection improves vision and eliminates eyestrain . . . reducing spoilage, promoting safety, building better employee relations. In non-fading white and 10 attractive colors.



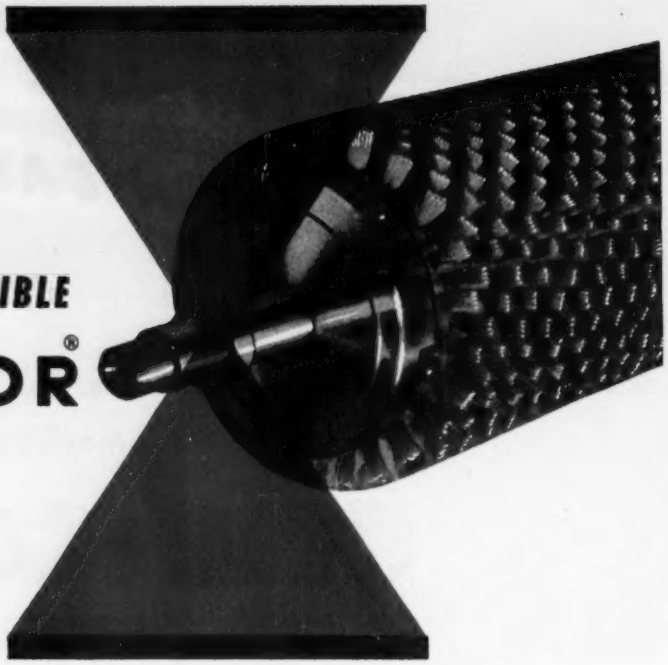
Glidden MAINTENANCE PAINTS

QUALITY Glidden PRODUCTS

Pacemaker for Paints

THE INDESTRUCTIBLE

METLKOR®



These textile industry facts are time-tested and proven to cut your costs. Plant operators are finding patented Jenkins' METLKOR—the cylinder brush that *can be rebristled*—lasts *3 to 12 times longer!*

Tuft-set bristles prevent abrasion, won't bleed or absorb dyestuffs. They resist water and solvents. And we'll rebristle them when they finally wear down.

These facts mean increased efficiency and sliced costs—*for you!* There's a METLKOR brush for every textile process. If you have a special brush problem, call on us, or write: M. W. Jenkins' Sons, Inc., Cedar Grove, Essex County, New Jersey.

Brushes available in nylon, pure China bristles, fibre, etc., or combinations.

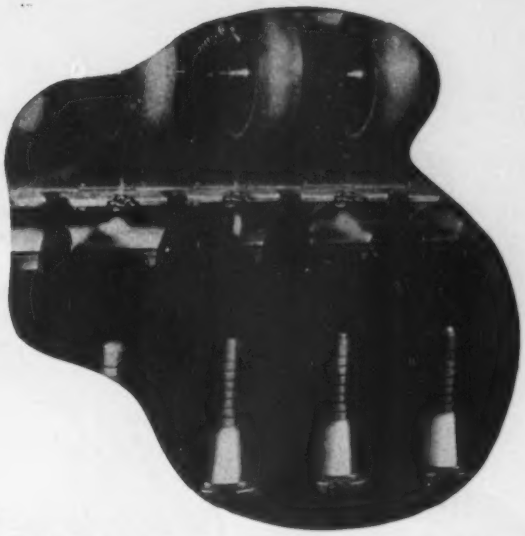
M. W. JENKINS' SONS, INC.

74 YEARS OF INDUSTRIAL BRUSH KNOW-HOW

Cedar Grove, Essex County, New Jersey

Now use SYTON with blends

Syton Produces Greater Yarn Strength In Wool Blends



You've already found Syton, Monsanto's silica dispersion, a profit-booster in woolen and worsted spinning...

Now... mill trials prove Syton just as advantageous with blends. Smooth rayon staple behaves more like serrated wool fiber when Syton is applied to control inter-fiber slippage. And the proof is in the spinning. Sytonized wool-rayon yarn is 10%-30% stronger; and ends down are fewer—and with Syton you can spin finer counts on all blends, or use *less* twist and get equal yarn strength.

These, and other real advantages, mean *many* production savings all along the line—more profit despite rising costs. You'll want to put Syton to work for you... in your plant. So send the handy coupon below for full information.

For full information on Syton*, Sterox 6* for wool scouring and other Monsanto textile chemicals such as Stymer*, for rayon slashing; Merlon* resins for durable finishes; Resloom*, for washability and wrinkle resistance; Sted*, for cleansing and scouring action; Catalyst AC for curing melamine and urea resin finishes; Dye fixatives; Rezgard*, fugitive-type flame retardant—check and return the coupon.

*Reg. U.S. Pat. Off.

MILL A—55-45 wool-rayon blend. Applied 1.5% Syton to wool stock; then blended before carding. Front roll speed increased from 105 to 139 r.p.m.—resulting in over 30% increase in production.

MILL B—50-50 wool-rayon blend. Applied 2% Syton, 3% oil emulsion. Stock carded well and was spun to 3⅛ run yarn. Tensile strength increased from 75 to 89 lbs.—a gain of 18%.

MILL C—80-20 wool-nylon blend. Applied 2% Syton, 4% oil to wool stock; then blended with nylon. Overseer attributed improved spinning to uniformity of sliver and yarn.

MILL D—50-50 wool-Dynel blend. Applied 1% Syton, 2½% oil (based on weight of wool) to blended stock. Spun to 6 run. Good control of fibers, smooth, uniform yarn noted.

MILL E—50-50 wool-viscose blend. Applied 1½% Syton, 3% oil to wool; then blended with rayon. Mill had used Syton for 18 months on blends, including virgin and darnetted wool, acetate, viscose, and nylon, with consistently good results.

MONSANTO
CHEMICALS—PLASTICS

SERVING INDUSTRY...WHICH SERVES MANKIND

MONSANTO CHEMICAL COMPANY, Textile Chemicals Dept.
Desk TWT-40, Everett Station, Boston 49, Mass.

Please send me information on: ☐ Syton ☐ Sterox 6 ☐ Stymer ☐ Merlon ☐ Resloom ☐ Sted ☐ Catalyst AC ☐ Dye fixatives ☐ Rezgard

Name & Title _____

Company _____

Address _____

City, Zone, State _____

Can't get 'em up on Monday?

If you can't get frame production up after week-end shut downs, due to bands popping off, or waste from slack bands, or from sticky wooden-bearing tape tension pulleys,—do as scores of other mills have done, and

get

Meadows Modernizers

and you'll end Monday-morning band, sticky tape-pulley, and cylinder troubles *for keeps!*... Convert your frames to tape drive with Meadows individual drive pulley and ball-bearing tape tension pulleys, and be assured of even tension at *all times*—a more uniform speed and twist—fewer ends down. Can be easily and quickly installed on either band-driven or old-style tape driven frames.

MEADOWS MANUFACTURING COMPANY • ATLANTA, GEORGIA

Representatives: JAMES P. COLEMAN, P.O. Box 1351, Greenville, South Carolina • WALTER S. COLEMAN, P.O. Box 722, Salisbury, North Carolina • MATTHEWS EQUIPMENT COMPANY, 93-A Broadway, Providence, Rhode Island • SAM HOGG, Atlanta, Georgia

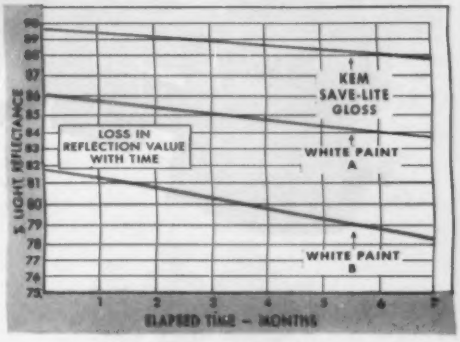
HOW "OLD" is your white paint the day it is applied ?

KEM SAVE-LITE STAYS WHITER, LONGER— BECAUSE IT STARTS WHITER!

Many "white" paints are a year old—or older—*the day they are applied,* in terms of the graying, or gradual loss of light reflective value, that occurs as paint films age.

KEM SAVE-LITE Mill White Finishes *start* whiter, or "newer", and *stay* consistently whiter, year after year, than most conventional white finishes. Proof of this is shown in the comparison of light reflective values of KEM SAVE-LITE and two typical ordinary mill white finishes in the accompanying chart.

Test KEM SAVE-LITE for yourself! See the difference—in initial whiteness—in hiding power—in greater covering capacity! Call your Sherwin-Williams representative for a demonstration, or write The Sherwin-Williams Co., Cleveland 1, Ohio. (Division Offices, Charlotte, N. C. and Boston, Mass.)



HERE IS PROOF!

Note how the whiteness, or reflective value of SAVE-LITE *starts* higher than conventional finishes when first applied, and *stays* higher throughout its life! This means longer intervals before repainting is required.

SHERWIN-WILLIAMS

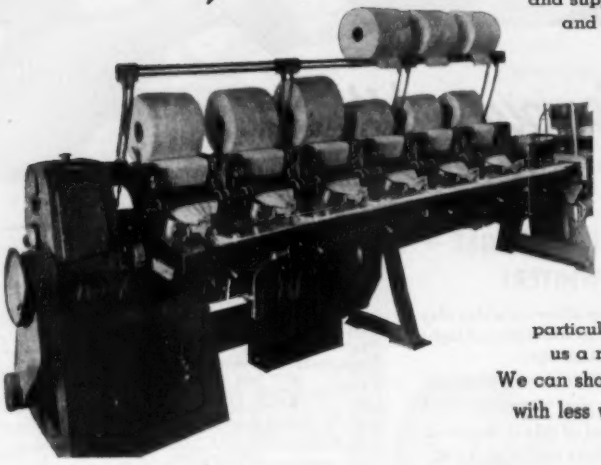
INDUSTRIAL MAINTENANCE FINISHES

SAVE-LITE MILL WHITE • COLOR HARMONY FINISHES

MILL VILLAGE PAINTS

For more information, write direct or use Reader Service post card.

Rust Spots are OUT with Machine Parts of *Carpenter* Stainless Tubing



Talk about very little maintenance! You just wipe these smooth Stainless storage racks and supports with a rag and they stay clean and gleaming. No chance for rust to ruin fibres or fabric.

And the strength of Carpenter Stainless Tubing keeps machines like this on the job. No unnecessary down-time for repairs to parts like storage racks, rolls or rods.

For more information about Carpenter Stainless Tubing made particularly for textile roll and rod use, drop us a note and tell us about your problems. We can show you cases of increased production with less waste as a result of using Carpenter Stainless Tubing.

THE CARPENTER STEEL COMPANY
Alloy Tube Division, Union, N. J.
Export Department: Reading, Pa. "CARSTEELCO"

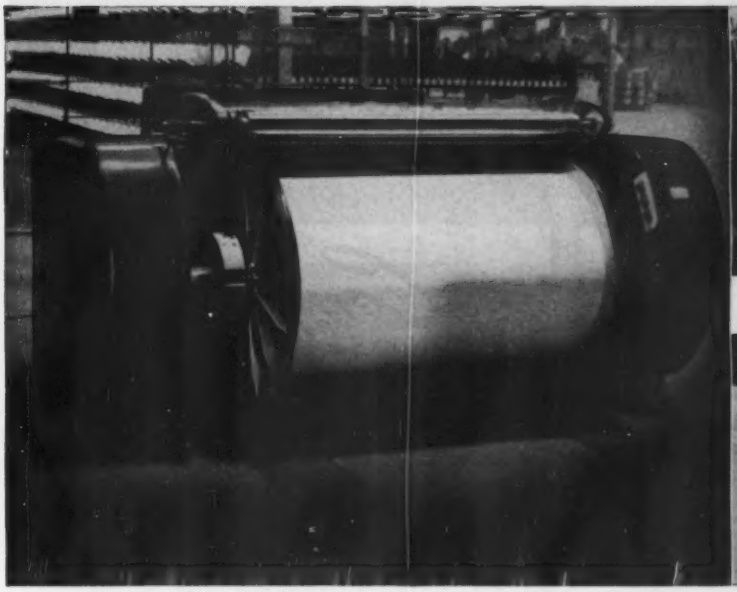
Carpenter

STAINLESS TUBING

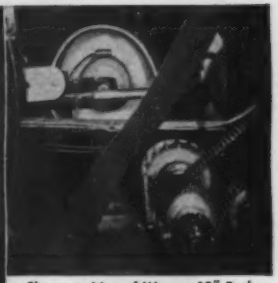
—guaranteed on every shipment

Distributors in principal cities are qualified to help you get better processing results with Carpenter Stainless Tubing. See your classified telephone directory.

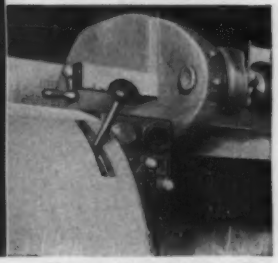
No More Lost Ends... When Warner "ICB" Units Are on the Beam!



Cocker Machine and Foundry Company's new high speed spindle driven beam warper incorporates three Warner ICB Brake Units.



Shows position of Warner 10" Brake on presser roll (upper) and 9 x 2½" Brake on main driving shaft (lower).

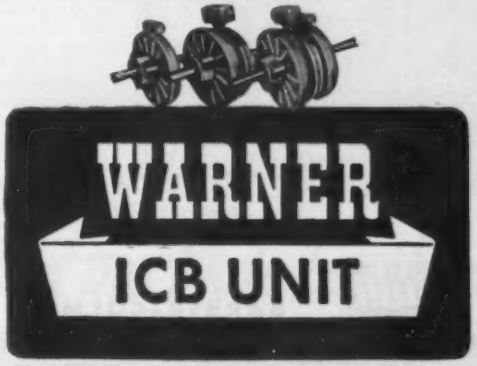


Shows position of Warner 5" ICB Brake Unit on crossover roll.

What Cocker says About the WARNER "ICB" Unit

Performance, cost and appearance of our high speed, spindle-driven beam warper were improved by using Warner ICB Brake Units. They provide faster stopping, thus preventing "lost ends" when a break in yarn occurs. With Warner ICB Brakes, machine stops in 1½ yds. at 500 yds. per minute machine speed. This compares with 5 yds. at the same machine speed when solenoid brakes were used. Warner ICB Units are easier to mount, require less space, eliminate noise and require no mechanical adjustments. Warner ICB Brake Power can be varied according to task, eliminating "skidding" of certain machine components. They are less expensive than the solenoid brakes formerly used.

Warner "ICB" Units are electrically-powered, low-wattage clutches and brakes. They can be operated singly or in combination — automatically or by push-button control. Being electric, they give lightning-fast response. Compact and simple, they provide easy installation and long-term dependable operation. They're a new answer to a wide variety of old machine design and operation problems. For further information on how Warner "ICB" Units may help you — write today to the WARNER ELECTRIC BRAKE & CLUTCH CO., Dept. TW, Beloit, Wisconsin.



Warner ICB Units are manufactured by Warner Electric Brake & Clutch Co.— Pioneers in the field of electric brake and clutch design and application since 1927.

Below, the Barber-Colman *Electronic* MOISTURE CONTENT CONTROLLER which automatically maintains the desired moisture content throughout the entire loom beam.

Complete
BARBER-COLMAN
Slasher Room Controls

AT U. S. RUBBER COMPANY, WINNSBORO MILLS

MOISTURE CONTENT • CYLINDER TEMPERATURE

SIZE LEVEL • SIZE COOKING

All Automatically Controlled

Above, the Barber-Colman CYLINDER TEMPERATURE CONTROLLER panel which automatically operates steam valves to maintain desired temperatures in the cylinders. The smaller panel is the SIZE LEVEL CONTROLLER which automatically holds the specified level of size in the size box.

Barber-Colman Company, with years of experience in textile processes, provides complete automatic control equipment that will help Lower Costs, Increase Production, and Improve Products. *See your Barber-Colman representative for details.*

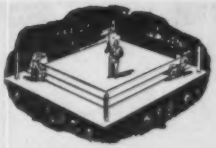
Right, the Barber-Colman TEMCHROM SIZE COOKING CONTROLLER which automatically governs the selected sequence of cooking and holding operations in the size preparation tanks.

BARBER COLMAN

BARBER-COLMAN COMPANY, Rockford, Illinois

Boston, Mass. • Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C.

Follow-thru with Leather



You get perfect boxing and throwing with

HAIRITAN BOXMASTER LEATHERS

because they give with the punch and go into a clinch

CUT SHUTTLE COST
KINKY FILLING
INCREASE PROFITS

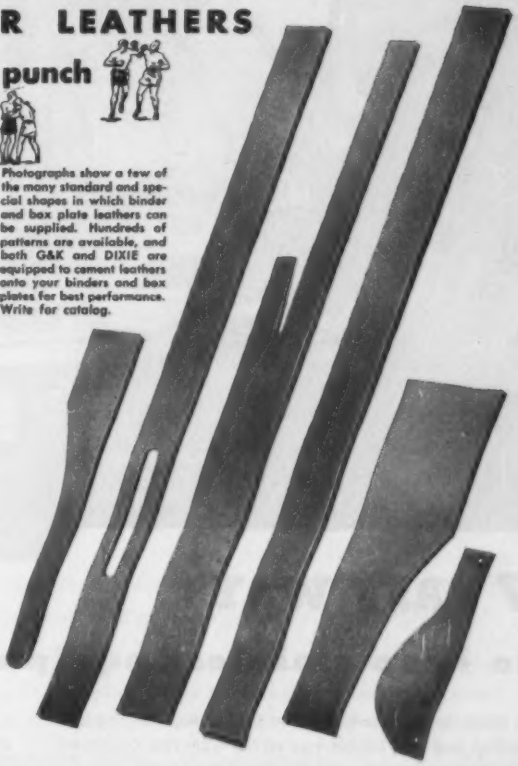
These stop-action photographs tell the story! They were posed after careful study with high speed stroboscopic lights, but since the top plate was removed it was impossible to have the loom in operation.

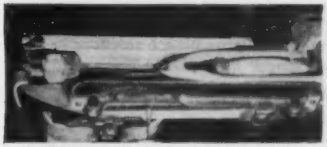
Notice that the shuttle *strikes* the shoulder of the binder, which then moves in against the shuttle and *brakes* it to a smooth stop at the end of the lay.

The exclusive G&K Hairitan tannage and finish give Boxmaster leathers a deep velvety, highly frictional surface and smooth catch-free edges. No waxes or fillers are needed. Boxmaster leathers do not bleed or catch fine filament rayon.

Boxmaster binder and boxplate leathers are part of the famous G&K Orange Line team of textile leathers that will help you get more and better output from your looms.

Photographs show a few of the many standard and special shapes in which binder and box plate leathers can be supplied. Hundreds of patterns are available, and both G&K and DIXIE are equipped to cement leathers onto your binders and box plates for best performance. Write for catalog.





1. Shuttle entering box strikes "shoulder" of binder, causing it to swing back, freeing shuttle.

2. Shuttle moves further into box.

3. Binder swings in against shuttle; binder leather provides braking action on shuttle.

100 YEARS OF SERVICE TO INDUSTRY

GRATON AND KNIGHT ®

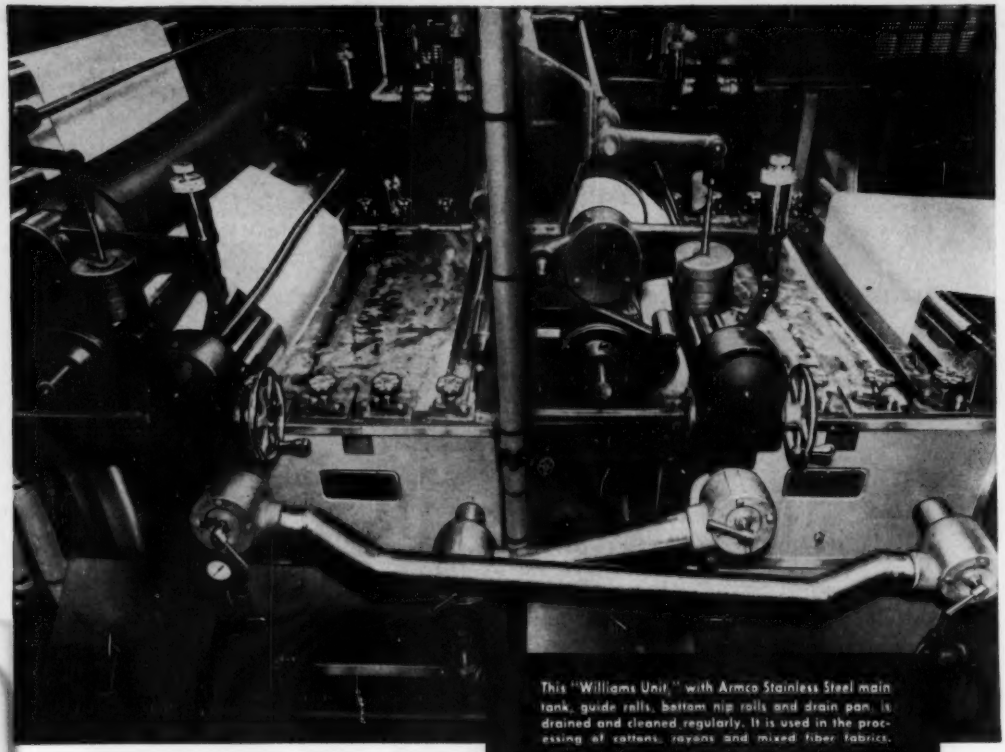
DIXIE LEATHER CORPORATION

HAIRITAN® BOXMASTER

Binder and Box Plate Leathers

FAMOUS ORANGE* LINE TEXTILE LEATHERS

GRATON & KNIGHT COMPANY, WORCESTER, MASS. • DIXIE LEATHER CORPORATION, ALBANY, GEORGIA *Affiliate*



This "Williams Unit," with Armco Stainless Steel main tank, guide rolls, bottom nip rolls and drain pan, is drained and cleaned regularly. It is used in the processing of cottons, rayons and mixed fiber fabrics.

7 EASY WAYS

to keep stainless equipment in top shape

In these days of heavy demand for textiles, unfailing production and long trouble-free service from your equipment are doubly important—to you and to the nation.

Here are 7 rules of good practice that will help assure long service life for textile equipment made of Armco Stainless Steels.

1. All units should be drained and cleaned once a week if possible. Wash with hot water and dry with an air hose, or brush the bottom as free of water as possible and dry.

2. During cleaning, all lint, pieces of brush bristles or other solid particles should be removed.

3. If scum, lint or other solid particles still cling to the stainless steel after washing, the unit should be thoroughly scoured. Any of the popular brands of mild cleansers should do a satisfactory job.

4. Ordinary steel wool should never be used. Stainless steel wool and some other scouring pads are satisfactory.

5. If discolorations appear on the surface of stainless steel, apply a 50 per cent solution of orthophosphoric acid to a lintfree cloth and rub it on the discolored area.

6. Avoid keeping hypochlorite bleach solutions in stainless steel equipment longer than 3 to 4 hours at a time. After draining, the units should be cleaned and dried as outlined in No. 1.

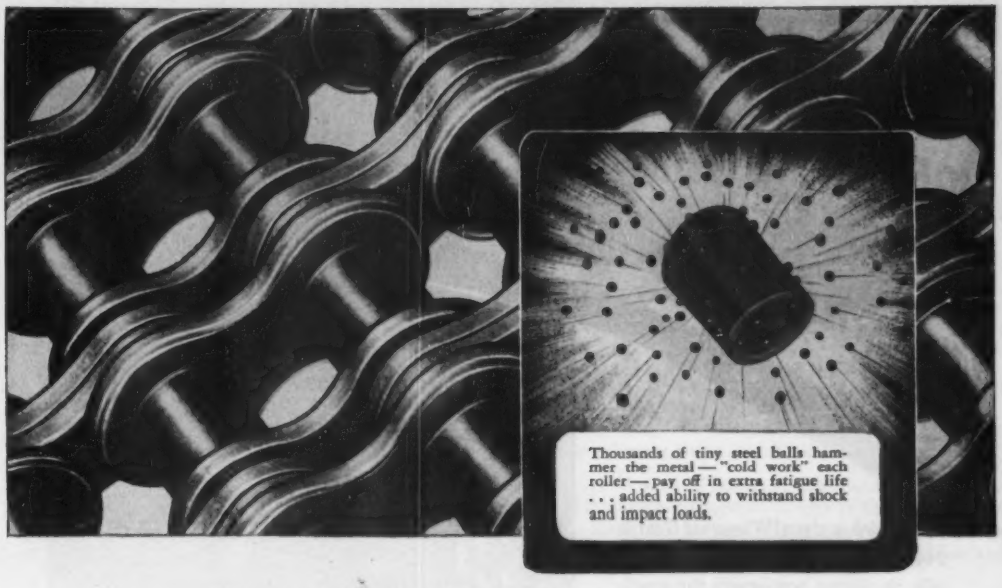
7. It is good practice to rinse a unit with water immediately after a solution of *any type* is drained from it.

By following these suggestions you can help make sure your equipment will outlast the emergency. Meanwhile, if you have high-priority work, we'll do our best to supply the Armco Stainless Steels you need.

ARMCO STEEL CORPORATION

2811 CURTIS STREET, MIDDLETOWN, OHIO • PLANTS AND SALES OFFICES FROM COAST TO COAST • EXPORT: THE ARMCO INTERNATIONAL CORPORATION

ARMCO


Thousands of tiny steel balls hammer the metal — "cold work" each roller — pay off in extra fatigue life . . . added ability to withstand shock and impact loads.

Why you should be sure the roller chain you buy has

SHOT-PEENED ROLLERS

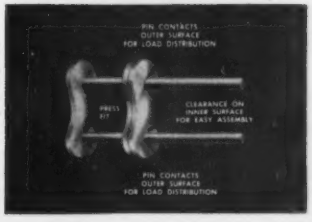
. . . one of the extra-strength features you get with every LINK-BELT Roller Chain

LOOK for the distinguishing darkened rollers on every roller chain you buy! They're your guarantee of extra fatigue life.

Shot-peening is just one of the added manufacturing refinements that make Link-Belt Precision Steel Roller Chain a longer-life chain. Controlled material selection and heat treating assure absolute uniformity . . . no weak members.

Link-Belt Roller Chain is available in single or multiple widths, in ⅜ to 3 in. single and double pitch. For the best in roller chain, get in touch with your nearest Link-Belt office.

Easier coupling and uncoupling without sacrificing load distribution


PIN CONTACTS OUTER SURFACE FOR LOAD DISTRIBUTION
PRESS FIT
CLEARANCE ON INNER SURFACE FOR EASY ASSEMBLY
PIN CONTACTS OUTER SURFACE FOR LOAD DISTRIBUTION

Patented E-Z Assembly feature of Link-Belt Precision Steel Roller Chain has won world-wide approval. Coupling and uncoupling of multiple width chains—right on the job—is far easier. There's absolutely no sacrifice of load distribution . . . no loss of the chain's remarkable performance. Press-fits between chain pins and middle bars have been modified. But full load-carrying capacity across the entire width of the chain has been maintained.

LINK-BELT

PRECISION STEEL ROLLER CHAIN

LINK-BELT COMPANY: Indianapolis 6, Chicago 9, Philadelphia 40, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8, Springs (South Africa). Offices, Factory Branch Stores and Distributors in principal cities. 12,310

For more information, write direct or use Reader Service post card.

MORE HEAT . . . LESS MAINTENANCE with TEXTILE THERMOLIERS

The record is clean! Whenever Textile Thermoliers have been installed in a mill, no matter how severe the conditions of lint and fly, the results have been the same . . . more heat, less maintenance.

The Textile Thermolier's special heating element is the answer. It consists of a series of webbed, pitched U-tubes parallel to one another and assembled into a single header. An extension of the web on the trailing side increases the heating area, while the absence of conventional fin edges minimizes the collection of lint, fly and dirt on the heating surfaces. Result: Textile Thermoliers stay cleaner, providing efficient heating with practically no servicing.

Avoid being caught "cold" next winter. Get all the facts on Thermoliers without delay.

WEBBED U-TUBE

- Parallel openings between the webbed tubes permit air from the fan to pass through and keep heating element clean.
- Safety and durability assured with leak-proof tube-to-header construction.
- Maximum capacity provided at all times and annoying and destructive water hammer eliminated because built-in pitch of tubes and internal cooling leg assures continuous drainage of condensate.
- Plain thermostatic trap, the simplest and least expensive kind of trap, made practical because of Thermolier's exclusive internal cooling leg.

GRINNELL

WHENEVER PIPING IS INVOLVED

GRINNELL COMPANY, INC., Providence, R. I. Warehouses: Atlanta • Billings • Buffalo • Charlotte • Chicago Cleveland • Cranston • Fresno • Kansas City • Houston • Long Beach • Los Angeles • Milwaukee • Minneapolis • New York Oakland • Philadelphia • Pocatello • Sacramento • St. Louis • St. Paul • San Francisco • Seattle • Spokane

For more information, write direct or use Reader Service post card.

"Stocking construction is very important."

says Jean Rothenberg, hosiery buyer, The Hecht Co., Washington, D. C.

"As a buyer of women's hosiery, I find that all stockings are not alike in quality or in texture in spite of the fact that most hosiery is made of nylon yarn. The construction of a stocking is very important and particularly reflects the precision and quality of the machinery used in the knitting . . ."

That is why the country's leading manufacturers safeguard the knitting quality of their merchandise by using

TORRINGTON

SPRING BEARD NEEDLES • SINKERS • DIVIDERS • SPLIT DIVIDERS

THE TORRINGTON COMPANY, Torrington, Conn., U. S. A.

Established 1866

Branches: New York • Philadelphia • Chicago • Greensboro, N. C. • Boston • St. Louis
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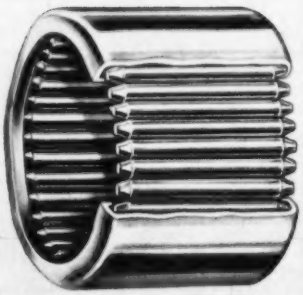
...needs little care

Torrington Needle Bearings require a minimum of maintenance... operate smoothly and efficiently for long periods without attention.

Lubricant is effectively retained by the turned-in lips of the outer shell, which also help to seal out dust, moisture and other foreign matter. An even film of grease or oil is spread over all bearing contact surfaces by the full complement of small diameter rollers.

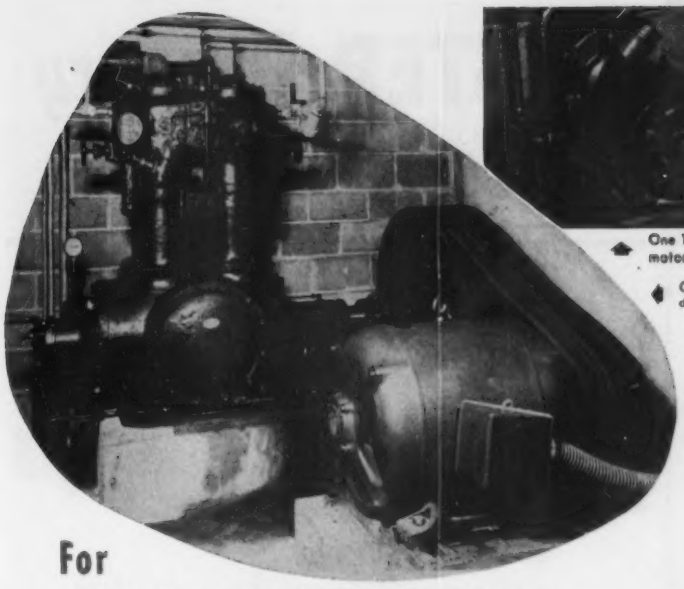
In many cases, Needle Bearings can be lubricated for life at installation. Our engineers will be glad to help reduce your maintenance problems with Torrington Needle Bearings.



THE TORRINGTON COMPANY
Torrington, Conn. • South Bend 21, Ind.
District Offices and Distributors in Principal Cities of United States and Canada

TORRINGTON *NEEDLE* BEARINGS

NEEDLE • SPHERICAL ROLLER • TAPERED ROLLER • STRAIGHT ROLLER • BALL • NEEDLE ROLLERS



One 10 horsepower and a 25 horsepower Century motor furnish power to air condition an office.

Century 75 horsepower Type SCH motor driving a compressor in a skating rink.

Unusually Quiet Starting and Running Characteristics

For REFRIGERATION COMPRESSORS

You Need the High Starting Torque of.....

Century

Type SCH Motors

Century Type SCH, Squirrel Cage polyphase alternating current High Torque motors are ideal for refrigeration compressor applications. They bring compressors up to speed smoothly and easily under full load.

Century Type SCH motors have the high starting torque characteristics required for Refrigeration Compressors. The low starting current is desirable for automatic across the line starting.

In addition, Century builds a complete line of electric motors in a wide range of types, in sizes from 1/6 to 400 horsepower. Specify Century motors for all your electric power requirements.

Century Service Is Near Any Century Motor Driven Equipment. Satisfactory performance of CENTURY products is assured by more than 200 CENTURY Authorized Service Stations supervised by 28 CENTURY Sales offices.

1. *Facilities for immediate exchange of most CENTURY standard ratings of standard construction are available at CENTURY Authorized Service Stations.*
2. *CENTURY Authorized Service Stations are qualified and equipped to service and repair any piece of CENTURY apparatus.*
3. *Genuine CENTURY renewal parts are available at CENTURY Service Stations, CENTURY Parts Distributors and at the factory in St. Louis.*

CENTURY ELECTRIC CO. is Celebrating Its 50th YEAR in the Electrical Industry

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Offices and Stock Points in Principal Cities

Century C MOTORS

703

Low first cost— low cost per ton handled

HYSTER *Salsbury* Turret Trucks

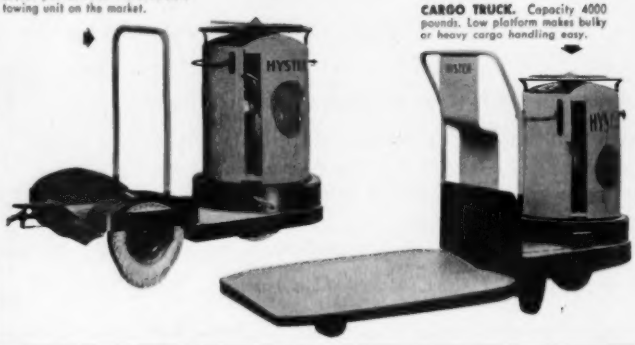
- ✓ **SIMPLE TO OPERATE.** Anyone can drive a HYSTER *Salsbury* Turret Truck.
- ✓ **USES LESS THAN ONE GALLON OF GASOLINE** per average 8-hour shift.
- ✓ **GREAT MANEUVERABILITY.** 360° steering is done through the drive wheel.
- ✓ **FULLY AUTOMATIC CLUTCH AND TRANSMISSION.** No gear shifting, no levers. Provides the power required under ALL DRIVING CONDITIONS. The truck can be "inched" along or driven up to 8 miles per hour fully loaded; 10-12 miles per hour when empty. Operator rides, or walks alongside truck.
- ✓ **TURRET POWER UNITS** are interchangeable on all Turret Trucks.

HYSTER is one of the oldest names in the materials handling industry. . . . HYSTER trucks are sold and serviced by 52 dealers in the United States and Canada and by dealers in 58 foreign countries. Wherever you are, sales, service and parts are available on the Hyster line of industrial lift trucks, Straddle Trucks, Karry Kranes and HYSTER *Salsbury* Turret Trucks.

PALLET TRUCK. Transports loaded pallets weighing up to 4000 pounds. Several fork lengths. Hydraulic fork lift.

PLATFORM TRUCK. Handles loads of 4000 pounds on skids or tote boxes. Several lengths and widths. Hydraulic platform lift.

TUG. Tows trailer trains up to 20,000 pounds. Most maneuverable towing unit on the market.



CARGO TRUCK. Capacity 4000 pounds. Low platform makes bulky or heavy cargo handling easy.

HYSTER

HYSTER COMPANY

THREE FACTORIES

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1822 North Adams . . . . Peoria 1, Illinois
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Operator Either Rides or Walks . . .

HYSTER *Salsbury* Turret Trucks compare in cost to most "walker-controlled" trucks—with all the features of rider-operation.

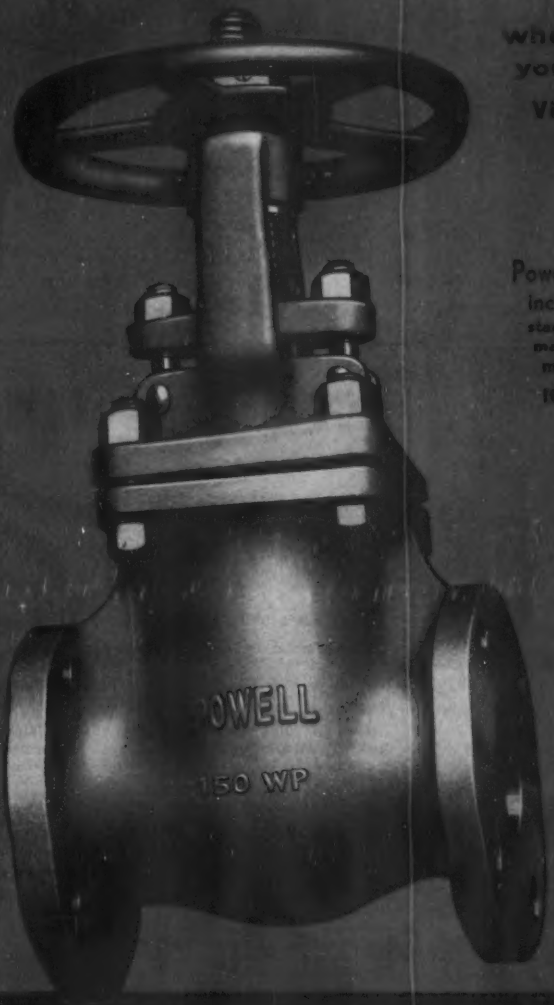
These horizontal transporters handle any type of load up to 4000 pounds. They go anyplace where man-pulled or power-driven trucks of the "walker-controlled" type can go—and the operator EITHER RIDES OR WALKS.

HYSTER *Salsbury* Turret Trucks are basic machines for new materials handling plans — will fit into any existing system. In wholesale drug and grocery companies, automobile or aircraft plants, warehousing, docks, shipping terminals, refineries, produce markets ...anyplace where there is a need for fast, low-cost handling, Turret Trucks are in use. Tight quarters, narrow aisles and ramps are no problem for the Turret Trucks.

Why look further?

when Powell can supply you with every kind of valve you may need!

Powell Valves for the Textile Industries include not only a complete line of standard valves of all types but also many designs in corrosion-resisting metals and alloys to meet all the requirements of the modern mill.



Quality fine throughout "The Line"

New 150-pound O. S. & Y. Gate Valve. Available in a wide selection of corrosion-resisting alloys. Made with either flanged or screwed ends. Sizes ¼" to 2", incl. All dimensions of flanged end valves conform to MMS Standard SP-42 and ASA B16.

POWELL

The WM. POWELL CO., 2525 Spring Grove Ave., P. O. Box 106, Station B, Cincinnati 22, Ohio

THE SPEED REDUCER THAT SAVES YOU MONEY!

Dodge Torque-Arm

America's Most Complete Line of Shaft-Mounted Speed Reducers

- No special engineering required. No foundation to provide. No flexible couplings. No sliding base. No "lining-up" difficulties. No expensive installation. Stock TAPER-LOCK sheaves prescribed for each job to provide desired speeds. Application to other machines is practical and easy.
- Unit is driven through any V-Belt Drive. Torque-arm, fastened to any fixed object, anchors the reducer unit. Turnbuckle provides fast and accurate adjustment of belt tension.
- *Backstop available from stock when required.* Simple. Positive. Easily installed. Sealed inside the reducer housing.
- Compact, *light weight, rugged.* Quality built by Dodge for Dodge *dependable* service.
- Built in two series—Single and Double Reduction. Capacities from 1 to 27 h. p. Speeds from 12 to 330 rpm. Available from distributors' stocks.
- WRITE for special bulletin A602.

DODGE MANUFACTURING CORPORATION, 1403 Union Street, Mishawaka, Indiana

DODGE
of Mishawaka, Ind.

CALL THE TRANSMISSIONEER, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable assistance on new cost-saving methods. Look for his name under "Power Transmission Equipment" in classified phone book.

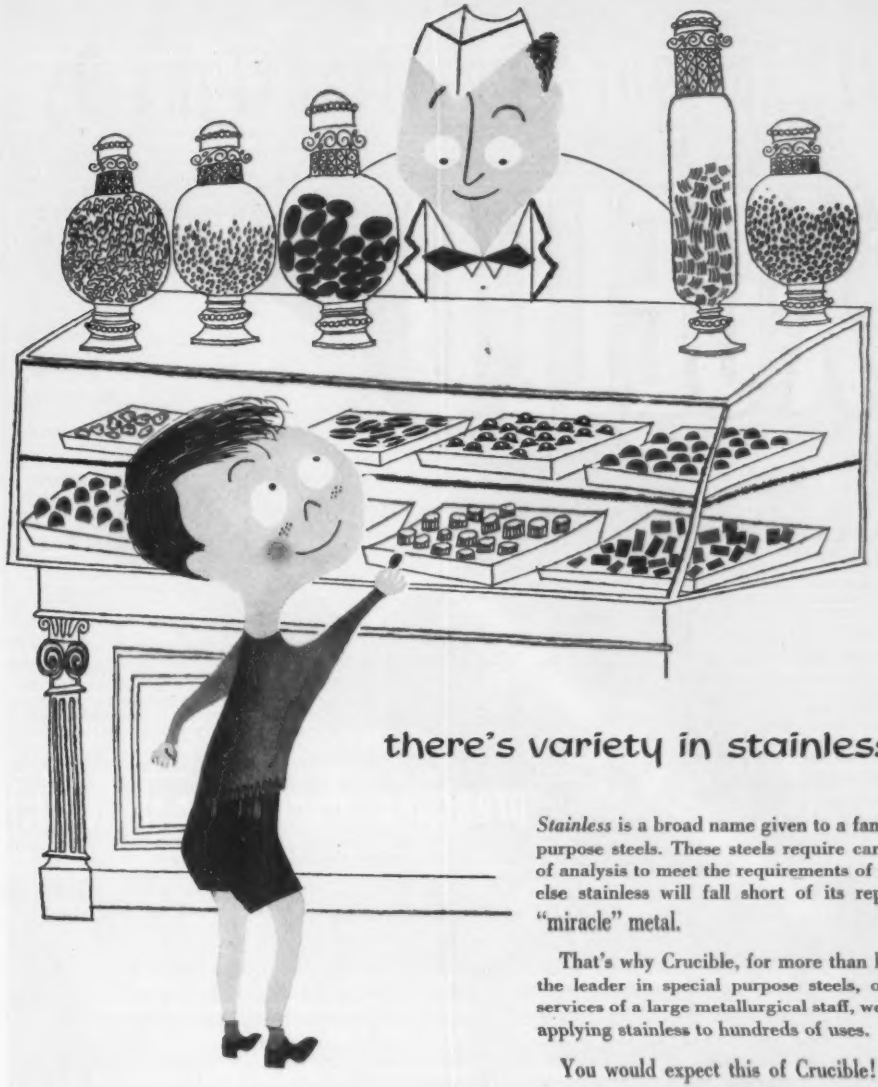
FIRST IN POWER TRANSMISSION MACHINERY!

V-BELTS AND TAPER-LOCK SHEAVES

DODGE-TIMKEN PILLOW BLOCKS

ROLLING GRIP AND DIAMOND D CLUTCHES

SOLID STEEL CONVEYOR PULLEYS



there's variety in stainless, too!

Stainless is a broad name given to a family of special purpose steels. These steels require careful selection of analysis to meet the requirements of the user — or else stainless will fall short of its reputation as a "miracle" metal.

That's why Crucible, for more than half a century the leader in special purpose steels, offers you the services of a large metallurgical staff, well-schooled in applying stainless to hundreds of uses.

You would expect this of Crucible! For Crucible was one of the first to build — from the ground up — a completely integrated mill to roll stainless exclusively. If yours is a stainless steel application, call on our unequalled background of experience. CRUCIBLE STEEL COMPANY OF AMERICA, Oliver Building, Pittsburgh, Pennsylvania.

CRUCIBLE first name in special purpose steels

51 years of Fine steelmaking

STAINLESS • HIGH SPEED • TOOL • ALLOY • MACHINERY • SPECIAL PURPOSE STEELS

Built To Your Specifications By

EX-CELL-O

... a great name in the
precision machine tool field!

Ex-Cell-O has been making precision parts to customers' specifications for close to 30 years. Today, these Ex-Cell-O products include parts for the textile industry . . . from spindles and various small parts to large assemblies. Ex-Cell-O has the facilities—machines, heat treat, assembly, and inspection—to produce your precision parts economically, in small or large volume, and in accordance with your delivery schedule. For a quotation, send a part blueprint to Ex-Cell-O Corporation in Detroit today.

Bulletin No. 26181 describes Ex-Cell-O's textile products. Write now for your free copy.

EX-CELL-O CORPORATION DETROIT 32

XLO

Thomaston Cotton Mills, Inc., Georgia, use Gates Vulco Ropes on the multiple V-Belt drives of the ply twisters shown in the photograph. In this application, the Gates Vulco Ropes have been averaging 31,200 hours of service—the equivalent of 13 years at 8 hours a day.

This Simple Test Tells WHY the Concave Sides of Gates Vulco Ropes Mean *Longer Belt Life!*

Prove this *yourself*--in two minutes' time.

Take any V-belt that has *straight* sides. *Bend* that V-belt while you grip its sides between your fingers and your thumb. You will *feel* the sides of the belt *bulge out*—as shown in figure 1-A, below.

Clearly, that outbulge forces the sides of the belt to press *unevenly* against the V-pulley —and this concentrates the *wear* where the bulge is greatest.

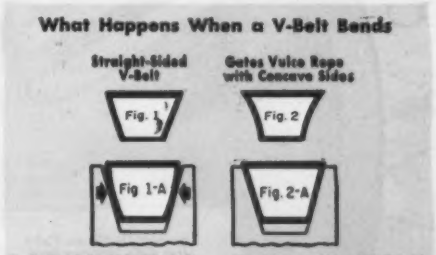
Now, make the same test with the belt that is built with the Concave Sides—the Gates Vulco Rope.

Figures 2 and 2-A show clearly what happens when you bend a Vulco Rope. Instead of *bulging*, the precisely engineered Concave Sides merely *fill out* and become perfectly straight. There is no side-bulge. This belt, when bent, precisely fits its sheave groove.

Because there is *no bulging*, the sides of the Gates Vulco Rope always grip the *full* face of the V-pulley *evenly* and therefore wear *uniformly*—resulting in *longer belt life* and *lower belt costs for you.*

Only V-belts made by Gates are built with concave sides. Whenever you buy V-belts, be sure that you get the V-belt with the Concave Sides—The Gates Vulco Rope!

What Happens When a V-Belt Bends



New Straight-Sided V-Belt Bulges in Sheave-Groove. Sides Press Unevenly Against V-Pulley Causing Extra Wear At Point Shown by Arrows.

The Concave Sides Fill Out to a Precise Fit in the Sheave-Groove. No Side Bulge! Sides Press Evenly Against the V-Pulley—Uniform Wear—Longer Life!

CS-511

THE GATES RUBBER COMPANY
DENVER, U. S. A.
The World's Largest Makers of V-Belts

Gates VULCO ROPE DRIVES
Engineering Offices and Jobber Stocks IN ALL INDUSTRIAL CENTERS of the U. S. and 71 Foreign Countries

It costs more to fix piping now!

You do less fixing

by using Dependable Quality

CRANE VALVES

...That's why more Crane Valves are used than any other make

No. 1615 Diaphragm Valve Iron Body, Neoprene lined

better performing diaphragm valves

Separate disc and diaphragm design distinguishes these Crane Valves from all similar packless types. Life of diaphragm is multiplied because it's used only to seal the bonnet—not for seating. The separate disc seats the valve, eliminating wear and tear on the diaphragm.

Increased flow capacity ... reduced flow resistance ... tighter seating ... lower torque and fewer turns to operate ... are typical added features of Crane Diaphragm Valves. Wherever you use them, you can be sure of outstanding performance.

Such better quality and greater dependability mark Crane valves and fittings of every type—and assure the lowest ultimate cost.

CRANE

CRANE CO., *General Offices:*
836 S. Michigan Ave., Chicago 5, Ill.
Branches and Wholesalers Serving All Industrial Areas

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

How you save time and money with

Pittsburgh CARGOTAINERS

Substitute Pittsburgh Cargotainers for your old-time handling equipment and you'll find they rapidly pay for themselves in man-hours. Cargotainers are designed to move through every mill operation without unloading and reloading. They are easily moved with lift truck or dolly — they stack or fold — and are ruggedly built for either temporary or permanent storage. Cargotainers are open-mesh so that the contents are always easily identified by color and type . . . moreover old tags and other foreign matter drop through without accumulating in the bottom. For complete information on how these patented collapsible welded-wire baskets with eight-way pallet bases can simplify your handling problem, write without obligation to Pittsburgh Steel Products Company, Department TW, Grant Building, Pittsburgh 30, Pa.

CARGOTAINERS by

Pittsburgh Steel Products Company

A Subsidiary of Pittsburgh Steel Company

American Blower . . . a time-honored name in air handling

Toledo, too, has a conveniently located American Blower Branch Office to provide you with data and equipment for air handling. You can reach American Blower in Toledo by calling Lawndale 7297. In other cities, consult your phone book.

COOLING . . .

American Blower's reputation for high quality has made them an important source of supply for many original equipment manufacturers. A leading maker of refrigeration equipment, for example, relies on American Blower almost exclusively for the fans and blowers used in his units. As he says: "We know refrigeration. You know air handling. Together, our teamwork and high standards of quality results in an end product second to none." Can you use the American Blower team in your field?

HEATING . . .

Being able to eliminate a central heating system with self-contained gas-fired unit heaters is a big advantage in those small but neat new stores and shops springing up everywhere. American Blower Gas-Fired Unit Heaters are not only highly efficient but harmonize beautifully with modern interiors. A.G.A. -approved, they are available in a wide range of sizes to meet many different commercial needs. Our nearest branch office will give you complete data and prices.

VENTILATING . . .

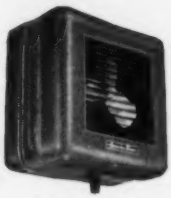
As an added sales feature for new homes and multiple dwelling units, builders find American Blower Aeropel Fans a natural. One builder recently installed 300 in a housing project. Found the response so good he's making them a standard feature. Aeropel Fans have won two Fine Arts Awards for beauty and utility in the home. They're ideal for ventilating kitchens, basements, recreation and utility rooms—are reasonably priced and easy to install.

MAY WE SERVE YOU?

American Blower heating, cooling, drying, air conditioning and air handling equipment can do much toward improving comfort and efficiency in business. For data, phone or write our nearest branch office.

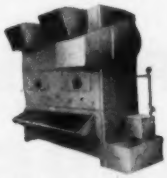
AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

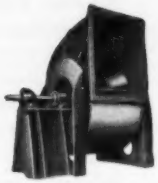


Unit Heaters

Ventura Fans



Air Conditioning Equipment



Industrial Fans

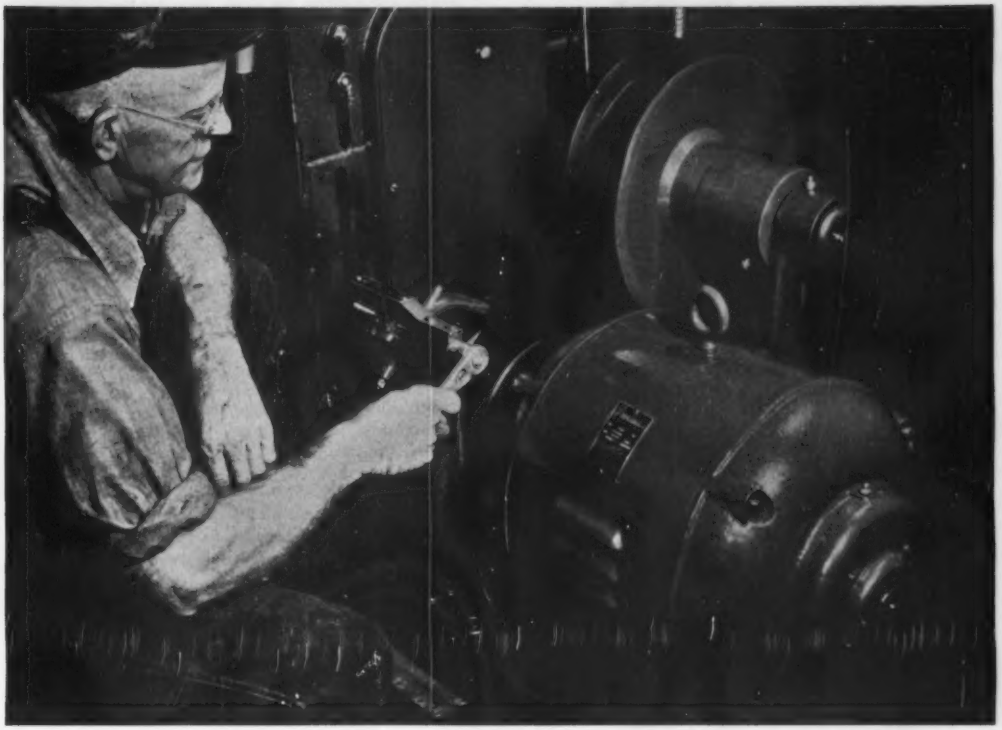
Utility Sets

YOUR BEST BUY AMERICAN BLOWER AIR HANDLING EQUIPMENT

Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

REEVES Vari-Spin Drive . . .

by far the quickest way to change cylinder speeds



To change speeds, simply turn a screw

- **Eliminates downtime and troublesome pulley changes.**
- **Speed changed without stopping the machine.**
- **Speed changes *always* immediate and positive.**
- **Full lubrication assures free-moving parts.**
- **Speed setting is accurately maintained.**
- **Compact—nests into narrow aisles.**
- **Uses any standard constant speed motor and only one belt.**

Mills report outstanding results with this new simplified drive . . . the minimum of ends down at the highest possible production rate!

Speed adjustment with the REEVES drive is stepless and infinite within its range—2½:1. This wide range covers operating speeds for all yarn sets. Slightest speed changes can also be made to compensate for excessive tension and for humidity or temperature variations.

The REEVES drive is so positive that returns to previous cylinder speeds within a fraction of an rpm are secured. The design is so simple that installation and maintenance are quick and easy. Get complete information. Write today for Vari-Spin Bulletin W61a-501.

accurate - variable **REEVES** *Speed Control*

REEVES PULLEY COMPANY • COLUMBUS, INDIANA

Recognized Leader in the Specialized Field of Speed Control Engineering

WE'VE SPILLED THE WORKS . . .

. . . to show you why you can get longer chain life . . . eliminate production losses . . . with Baldwin-Rex Roller Chains on your machines.

Here are the "works" . . . the parts that make up the Baldwin-Rex Pin and Roller link. The photograph can't show you the high quality materials that go into these parts. BUT, it does illustrate some of the manufacturing "extras" that make Baldwin-Rex *better!*

1 NOTE THE BEVEL

on side plate edges . . . this assures better and smoother engagement of the chain with sprocket teeth in case of misalignment . . . no danger of cuts from sharp edges.

2 NOTE THE BUSHINGS

. . . they're precision-made of low carbon alloy steel with surfaces case-hardened *inside and out* It means longer life of bearing surfaces . . longer life and lower operating costs to you.

3 NOTE THE ROLLERS

. . . precision made from medium carbon alloy steel, heat treated and drawn for toughness to withstand impact at high speeds and the great pressure when engaging sprocket teeth.

4 NOTE THE PINS

. . . particularly the color difference at the ends. That's because they're copper plated to assure a softer end for proper, secure riveting while retaining a file-hard, heat-treated bearing surface for long life.

These are but a few of the many points that make Baldwin-Rex Roller Chains your best bet for longer life . . . lower cost service. Your Baldwin-Rex Field Sales Engineer will be happy to discuss the complete story with you and assist you with your chain selection and application problems. For the Baldwin-Rex quality story, write for your copy of Bulletin No. 51-1. Baldwin-Duckworth Division of Chain Belt Company, 346 Plainfield St., Springfield 2, Mass.

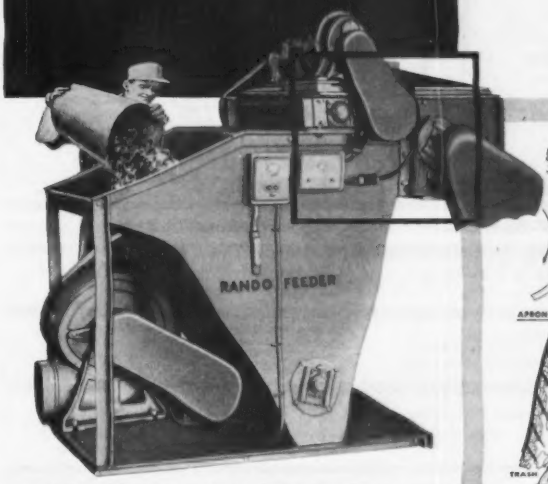
BALDWIN-REX ROLLER CHAINS

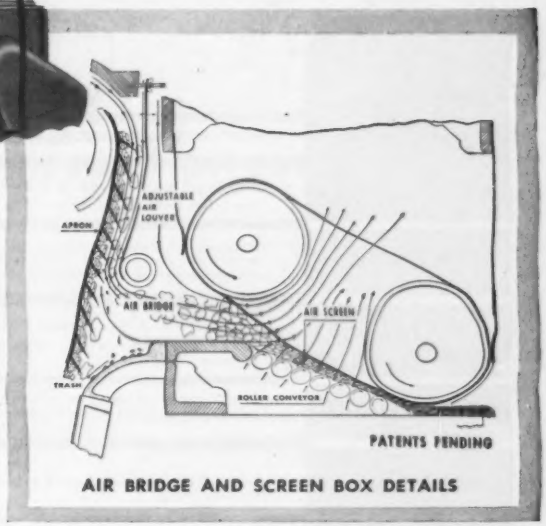
BALDWIN-DUCKWORTH
DIVISION OF CHAIN BELT COMPANY

a complete line from ¼ to 2½-inch pitch

NEW TEXTILE FEEDER...

Delivers waste and staple fibers uniformly...





AIR BRIDGE AND SCREEN BOX DETAILS

RANDO-FEEDER*

The RANDO-FEEDER was developed with simple principles and construction features to (1) uniformly feed fibers lengthwise and crosswise into the RANDO-WEBBER, and (2) capably handle a wide variety of low cost, short staple waste fibers.

Whether the hopper is full or nearly empty the uniformity of feed remains constant, because of the overfeeding feature of the apron to the air bridge. Tests show the total deviation of lengthwise uniformity to be under 5%. Evenness of fiber flow made possible by the RANDO-FEEDER may have an important bearing on the uniformity of the finished yarn.

EXCLUSIVE AIR BRIDGE FEATURE:—The Air Bridge serves two important functions: (1) It allows only the proper amount of loose fiber to cross . . . one of the key factors contributing to uniformity. (2) The Air Bridge is an effective cleaning device. It eliminates foreign materials, tramp metals such as steel and brass, wood and heavy waste. These materials are deposited in the trash box at the base of the machine.

These features may suggest broad usage of this FEEDER in the textile industry.

We invite inquiries from mills wishing to improve their present feeding methods and to see a demonstration of both the RANDO-FEEDER and RANDO-WEBBER.

*T.M. Reg. CURLATOR CORP. ROCHESTER, N.Y.

TEXTILE DIVISION
CURLATOR
CORPORATION
ROCHESTER 10, NEW YORK

Curlator Corporation, Textile Division
515 Blossom Road, Rochester 10, New York

- ☐ Please schedule a demonstration
- ☐ Please make up samples from my own waste
- ☐ Please send Random Web Bulletin 101

NAME .....
COMPANY .....
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COMPARISON PROVES the VALUE of VEELOS

the Adjustable V-Belt...

IF you use v-belts you'll be interested in this clear statement of facts about VEELOS, the link v-belt, and endless v-belts.

These 4 reels of Veelos provide up to 316 standard v-belt sizes.

COMPARISON TABLE
VEELOS and ENDLESS V-BELTS

what about...	Veelos V-Belts	Endless V-Belts
ADJUSTABILITY	*Any* length can be provided for *any* v-belt drive due to link construction.	Standard or special lengths must be supplied for *individual* drives.
INVENTORY	MINIMUM INVENTORY. 4 reels can care for every v-belt need in the O, A, B and C widths. No deterioration or obsolescence of spare belts.	LARGE INVENTORY. 316 sizes are required to provide a *complete* stock in the O, A, B and C widths. Spare belts not immediately used will age and deteriorate.
STOCKROOM STORAGE	SMALL SPACE. It takes less than 2 square feet of wall or floor space to store 4 reels of easily identified Veelos.	LARGE SPACE. Walls and ceilings are often covered with stocks of endless v-belts. Identifying and maintaining full stocks is difficult and costly.
INSTALLATION	Installs quickly *on any drive* without resetting motor or tearing down outboard bearings.	Necessary to reset motor and tear down drives with outboard bearings.
MAINTENANCE	Belts can be adjusted or replaced without moving the motor.	Sliding or pivoted motor bases are necessary to replace endless v-belts. Belts cannot be adjusted individually.
OPERATING EFFICIENCY	Full power delivery can be maintained because the tension of each belt in a matched set is kept uniform by removing or adding links.	Individual belts cannot be adjusted to maintain uniform tension and provide full power delivery.
DRIVE LENGTH	No limitations are imposed by belt length.	Limited by the availability of standard or special belt lengths.

If you would like to learn more about Veelos—how it can save you money and keep your machines producing—write today for your copy of the Veelos Data Book. It's free and full of facts!

MANHEIM MANUFACTURING & BELTING COMPANY
MANHEIM, PENNSYLVANIA

VEELOS
THE LINK
V-BELT

... ADJUSTABLE TO ANY LENGTH ... ADAPTABLE TO ANY DRIVE

Made in all widths in three types: regular, oil-proof and static conducting. Also double V in A and B. Packaged on reels in 100-foot lengths. Sales engineers in principal cities; over 350 distributors throughout the country. VEELOS is known as VEELINK outside the United States.

For more information, write direct or use Reader Service post card.

Why UNBRAKO "STANDARDS"

"Standards" keep you in the BLACK

Standard design and purchase | Standard tools | Standard (fast) production with "standards" from stock | Standard (or higher) profits

"Specials" put you in the RED

Special design | Special drawings | Special purchase | Special (delayed) delivery | Special stock

Special tools | Special production | Special bookkeeping | Special costs (higher) | Special profits (lower)

Knurled Socket Head Cap Screw | Flat Head Socket Cap Screw | Self-Locking Knurled Point Socket Set Screw | Knurled Socket Head Shoulder Screw | Fully-Formed Pressure Plug | Precision-Ground Dowel Pin

STANDARD recommends "Standards"

SPS

now let's talk dozens of pairs

"Try to beat the production of those new Reading Machines! They are getting 15 or more dozen pairs in 8 hours . . . and finest quality fabrics, too."

• • •

The new "Reading" Machines are producing full-fashioned stockings of superior quality and at higher speeds than ever before possible. Many exclusive "Reading" features give higher precision in operation and greatly simplified control . . . 30 sections . . . 51 and 60 gauge.

TEXTILE MACHINE WORKS • READING, PENNA.

The "READING"
Full-Fashioned Knitting Machine

The Defense Production Problem

To win out in the struggle for freedom into which the Russian Communists have plunged us we must do at least four things. We must:

1. Speedily carry through a program of defense production which, at its peak, is scheduled to take about one-fifth of our national output.

2. Pay for this program as we go, by methods that will enable us to maintain the effort for an indefinite period – as long as may be necessary to insure peace and security.

3. Manage intelligently and endure intelligently a set of direct government controls which, in certain critical departments, will put our national economy for a time in a hateful straight jacket.

4. See that these emergency controls are not fastened upon us permanently thereby presenting to our Soviet antagonists a major victory for collectivism on our home front.

This is the first of a series of editorials designed to present in the simplest terms these key aspects of our struggle to preserve our free institutions.

A Staggering Task

The magnitude of the defense production job staggers the imagination. Over the next year it calls for a larger volume of goods and services than the 20 million people of the states of New York and New Jersey will use for all purposes. The (London) TIMES has observed that, taken alone, the increase of defense expenditures which has been budgeted for the federal government's coming fiscal year (about $30 billion) "is in itself not far short of the total national income of the United Kingdom."

Yet so powerful is the production machine created by free American enterprise that, at the scheduled peak, the defense program will take only about one-fifth of our total national output. The exact form and dimensions of the program will, of course, be hammered out on the anvil of public and congressional debate. But the President's recent estimate of an annual rate of expenditure of $45-55 billion for defense by the end of this year may well turn out to be somewhere near right.

To meet even these vast requirements of defense production we are in better shape technically than we were when we started to prepare for World War II. Our industrial plant and equipment is greatly improved. Over $65 billion has been invested in it since V-J Day. Our working force is about eight million larger than it was ten years ago and much better trained.

The difficulty, and it is a very serious economic difficulty, is that we must fit the defense program into a productive machine that has been almost fully extended to meet the needs of a booming civilian demand. The present plan is to step up defense production during 1951 from about 7% to about 18% of our total national output. Because there is relatively little slack in our economy, this means that civilian production at the outset must

be cut back as defense production is stepped up.

The cut-back of civilian goods must be especially severe in the case of products made of metal. This is particularly true of goods that use scarce strategic metals such as aluminum and copper. Of our total defense production program, about half will go for "military hardware" – airplanes, guns, munitions, tanks and the machinery to make them. By the end of 1951 defense requirements are scheduled to absorb most of the metalworking production not required for essential construction and for the spare parts necessary to keep existing equipment running. For a time at least, there will be a sharp cut in the supply of new metal products available to civilian consumers. The defense squeeze on both materials and manpower will also cut sharply into housing and other civilian construction.

For the Short Run — Controls

In the short run there is no answer to the problem of meeting defense production schedules except controls. Sharp reduction of non-defense expenditures by government is essential and would help greatly. But the basic fact is that we cannot increase our total production fast enough to meet immediately both civilian and defense requirements.

Controls are needed, therefore, to switch resources from civilian to defense production, and at the same time prevent the combined demand for critical products from sending prices right through the roof. In the case of many scarce strategic metals such as nickel, copper and cobalt, the task of increasing output is especially difficult because our limited supplies are tucked away deep in the earth in many quarters of the globe.

For the longer pull – and that is what we must face – there is another answer to our defense production problem that is infinitely better than controls. And this time, in contrast to World War II, it is all-important that we get the right answer to our defense production problem for the longer pull and that we get it right now. In World War II we geared our economy to meet the requirements of a relatively short and decisive conflict. Now our leaders, however they may differ as to methods, are well agreed that, at best, "the conditions under which we labor may persist for ten, fifteen or twenty years." That is General Bradley's phrase.

For the Long Pull — More and Better Production

For this longer pull, the constructive answer to our problem of defense production is clearly more and more efficient production all along the line. It is true that overall we now have the most efficient industrial establishment in the world. But, even so, much of it is far short of attainable efficiency. Some plants using up-to-date equipment and methods are as much as six times more efficient than others in the same industry that are lagging in modernization.

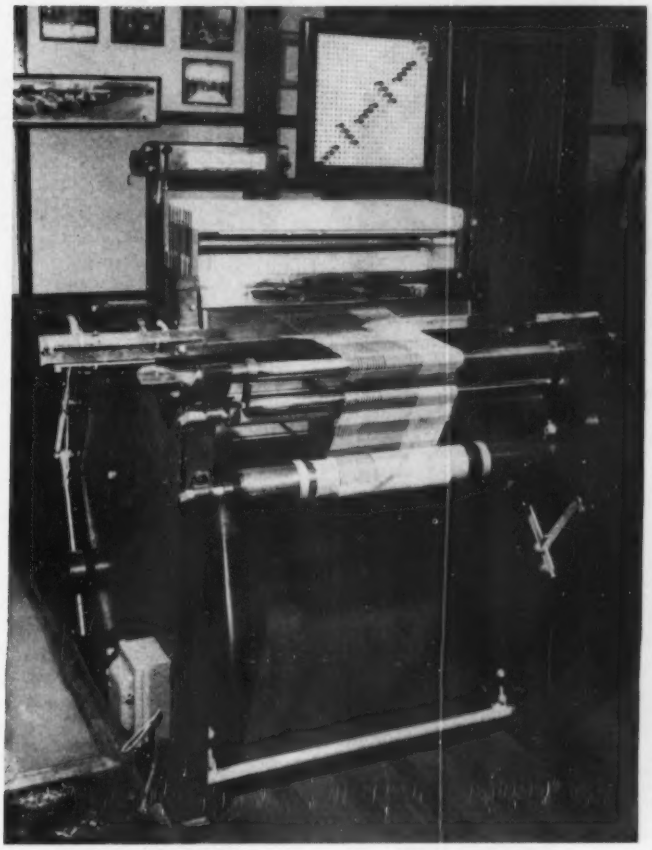
Our Director of Mobilization, Charles E. Wilson, has clearly in mind this problem of increasing our industrial efficiency. The first step in his job, as he conceives it, is to get out an adequate supply of weapons to equip the army, navy, and air forces already mobilized or in process of organization by us and our allies. The second step is to make sure of our capacity to produce both "military hardware" to meet any increased requirements and the maximum possible volume of goods for civilian use.

In concentrating on more and more efficient production, Mr. Wilson is squarely on the beam. We can attain his objective – by sustained effort on the part of each one of us backed by up-to-date industrial methods and equipment.

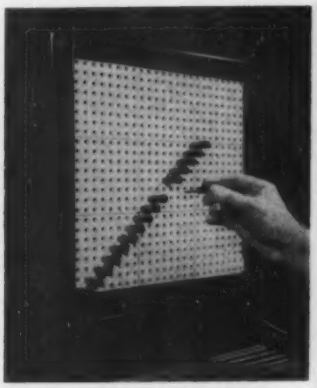
If we do that, we can maintain indefinitely an adequate defense effort and at the same time enjoy a standard of living higher than any other in the world.

Additional production and more efficient production are our surest safeguards against our two most menacing enemies on the home front – the deadly inflation that can destroy our free economy, and the strangling government controls that can destroy our political freedom.

McGraw-Hill Publishing Company, Inc.



PICKER-STICKLESS SAMPLE LOOM has a spring-impelled picking motion built in under the shuttle boxes and synchronized with the lay motion. Loom dimensions are 67 x 55 x 53 in. Weight is 675 lb.



ELECTROMAGNETIC DOBBY can create hundreds of patterns with the same draft and design card or chain. Merely changing a peg changes the sequence of lift of a harness.

COLLAPSIBLE WARPING FRAME and creel for 7½-yd.-long warp yarns in as many sizes and colors as the pattern calls for is equipped with an automatic yarn guide and yardage counter.

Electromagnetic Dobby Speeds Sample DESIGN VARIATIONS

- ***Blanket samples quickly woven even before a draft is made***
- ***Hundreds of different weaves possible, using the same draft and design card***
- ***Swiss sample weaving machine has a spring picking motion***

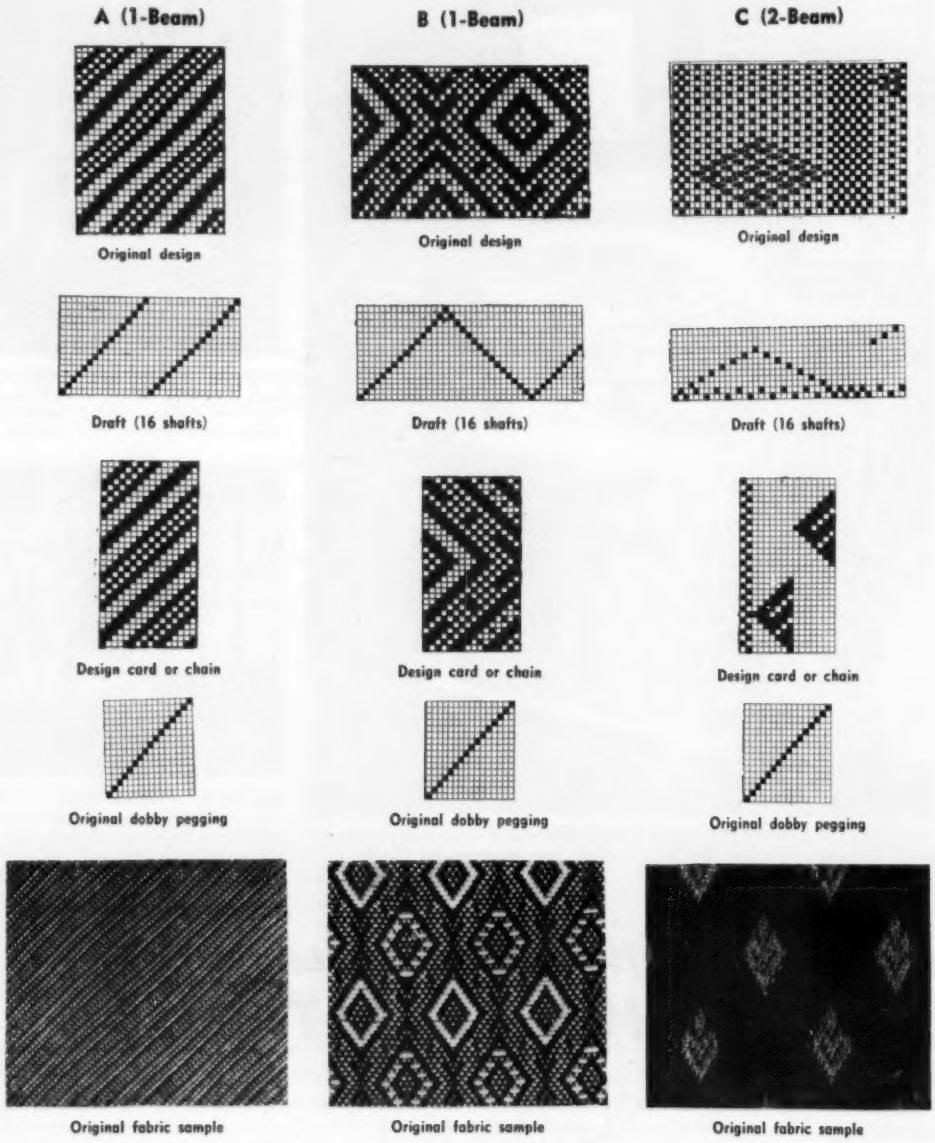
By GUSTAV ZELLNIK
Consulting Editor, TEXTILE WORLD

ILLUSTRATED ON THE next page are sample fabrics that were woven quickly and easily by means of the new Swiss sample-weaving machine located at the Hudson Service and Storage Co., Union City, N. J. All of the designs shown (through the courtesy of Schwarzenbach-Huber Co.) are some worked out on the sample-weaving machine.

While the sample-weaving machine operates from an electric dobby, the fabric which it produces can be duplicated on any conventional dobby loom. The principal advantage of the new type of machine is that blanket samples can be quickly made up even before a draft is made. When working with the sample loom, drafts are made from the pegging of the loom rather than vice versa, which is normal with samples made on conventional looms.

In the left-hand illustration on this

Original Cloth Design Is Set Up . . .

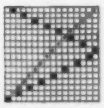
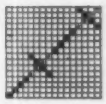
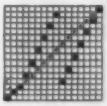


page, directly over the loom can be seen the electromagnetic switchboard that is responsible for creating hundreds of different weaves with the same draft—and a single punched design card.

In the electromagnetic dobby, each shaft is controlled by a direct contact system operating from magnetic coils. The original design-card punchings let the feelers through to make electric contact and lift the individual shafts. Merely changing a peg on the dobby changes the sequence of lift of a harness and creates new interlacing effects.

PICKING MOTION. A spring pick-

. . . And Varied by Changing Dobby Pegs

A (1-Beam)	B (1-Beam)	C (2-Beam)
		
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	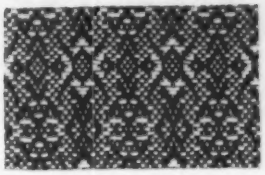	
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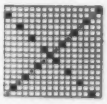	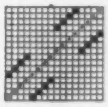	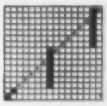
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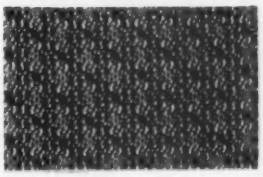	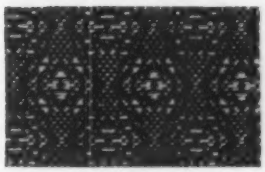	
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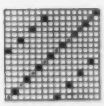	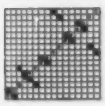	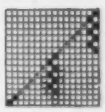
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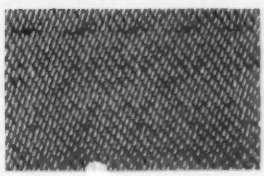
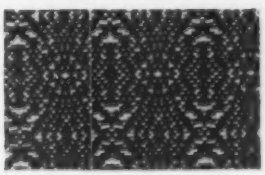
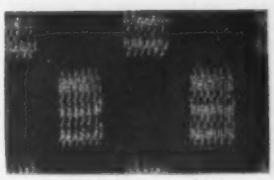
		
New woven fabric	New woven fabric	New woven fabric

ing motion replaces conventional picker sticks on the sample looms. Triggers release the springs which drive the shuttle back and forth. Although only one shuttle is used, it can be quickly changed by hand to give box effects, including pick-and-pick effects. The shuttles are triggered when the lay is on back center.

A 7½-yd. warping reel is used on conjunction with the sample weaving machine to make up the warps. By use of the warping machine, a sample warp can be made up quickly and with the use of a minimum amount of yarn as well as time. The warper has an automatic yarn guide and yardage counter.

1951 Annual Knitting Section

For Maximum Production...

Overhaul Your HALF-HOSE Knitting Machines Now

Why now? D. A. Hood, president, McDonough Hosiery Mills, Inc., McDonough, Ga., says—

- **To get machines in good condition for all-out production.**
- **To be prepared if supply of spare parts gets short.**
- **To train available manpower to take over in emergency.**

By E. DALTON WHITE, McGraw-Hill Atlanta Bureau

THE PRACTICE IN SOME circular knitting mills to "let machines alone", as long as they are operating, has many claimed advantages. However, these machines are running on borrowed time; they are likely to break down at a time when peak production is needed.

Fixers should not continually "tinker" with the machines and think they are keeping them in good condition. They should lubricate, clean, inspect parts, and check settings on a regular schedule.

Knitters must be trained to call the fixer when there is even a slight variation in knitting quality, so that he can correct the trouble before it gets to serious proportions.

A well-organized preventive-maintenance program will do much to keep replacement-parts cost down and production efficiency up. Such a program becomes more important as the defense program moves into high gear, because possible shortages of parts and trained labor may make it hard to keep run-down machines in full production.

Preventive maintenance is on a high level at McDonough Hosiery Mills, Inc., McDonough, Ga. The system used in an outgrowth of the experience of president D. A. Hood, who got his early training in the hosiery industry as a knitter, machine fixer, and superintendent. He has trained his knitters and fixers to sense the first signs of maladjustment and to make immediate corrections before any serious trouble develops.

As a result, the down time of the 204 machines, including 119 footers, 52 ribbers, 27 loopers, and 6 sewing machines, has been reduced to a minimum. The mill produces 70-gage infant and 48-gage misses hosiery.

Here's how the preventive maintenance system at McDonough works—

1. Overhaul Regularly

Machines are removed from the production line and are taken to the shop to be overhauled. When a machine is taken out, a machine previously overhauled replaces it.

Each working part of the machine is inspected for wear. It is replaced if it is not in perfect condition. The machine is thoroughly cleaned, and all settings and adjustments are made in the shop. Mr. Hood insists on very close tolerances on all settings, so that top-quality work will be produced.

As soon as a machine is completely overhauled, it replaces the next machine to be overhauled. The shop is well equipped; and by doing the overhauling here instead of in the knitting room, less production is lost. Don't wait for major breakdowns to occur before you overhaul.

2. Save Usable Old Parts

Don't throw away parts which are worn but which are still serviceable. If supply gets really tight, you may have to rely on these old parts to

FEATURING

Maintenance *for* Maximum Production

"PROPER ADJUSTMENTS will prevent many unnecessary machine stoppages," says Supt. J. R. Johnson, above. Tolerances must be kept close to get the best work.

AN OIL CAN is an important tool if it is used in the right way. Use just enough light, high-viscosity oil to keep friction down and prevent excessive wear.

A MACHINE SHOP will pay off for even a small knitting mill. The equipment at McDonough is sufficient to take care of most of the breakdowns.

keep your machines running. At McDonough, all parts which can be repaired or salvaged are stored for emergency use.

Try to keep parts that are worn about the same amount together. When you have to replace many needles, change them all. Then, if later on you have to use the old needles, put them on in sets. You will get a more even stitch.

Cams which are slightly worn can sometimes be ground a little to make them even. Badly worn cams can be built up and reused.

3. Stock Enough Supplies

Many circular-knitting mills are located some distance from supply centers. It is hard for these mills to get immediate delivery on parts, especially when they are in short supply.

McDonough is in this situation. Superintendent J. R. Johnson carries a 60-day inventory of replacement parts and supplies. He feels this stock plus salvaged parts will be adequate.

4. Line and Level

Wear of bearings and other parts will be held to a minimum if the machine is level and if it is properly lined up.

The pulleys should be in perfect alignment, and the belt tension should be right. The tension should be just enough to cause the belt to hug the pulley. Too much tension causes excessive wear on the bearings and the belt. Not enough tension will cause excessive wear on the belt and may result in uneven speeds.

Mr. Johnson dresses his belts at least once a month. Under some conditions, they will need it more often.

TO CLEAN NEEDLE and sinker slots, first direct air up through the cylinder as demonstrated by the author, because most lint accumulates on the tops of the sinkers and needles.

BLOW DOWN through the needle and sinker slots only after you have blown up through the cylinder. You will get better cleaning this way and keep lint from being lodged in the cylinder.

For Maximum Production...

Proper Oiling and Cleaning Required for OUTERWEAR KNITTING

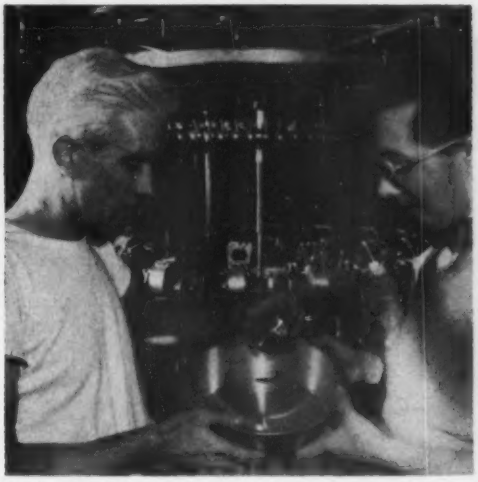
- **Possible shortage of replacement parts makes it doubly important that you lubricate and clean your machines properly.**
- **The way you blow-down your machines will affect the life of the needles and sinkers.**
- **Pattern wheels must be cleaned, oiled, and set properly if you are to prevent costly breakdowns.**
- **Practice preventive maintenance—you will get more wear from all parts and reduce your operating costs.**

By LAWRENCE LEVY, Lawrence Knitting Mill, Gastonia, N. C.

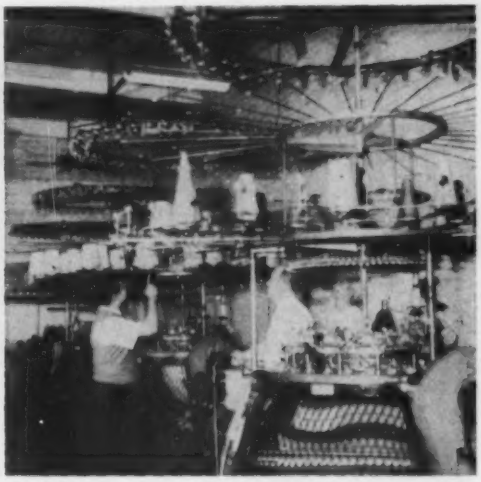
As our defense effort increases, it will become imperative for knitters to keep their machines in top shape for maximum production. Unfortunately, some knitters believe that it is more important to keep the machines running than to stop them in order to maintain the machines in proper working order. It will not be very long before these knitters wonder why parts are wearing out and also why the quality of their fabric has deteriorated.

With steel and other metals in short supply today, it is becoming harder to get replacement parts. Also, in some cases, the quality of metal used and the workmanship put into the product may not be of the same high quality. Besides the shortage of materials, a shortage of labor will probably cut production of parts. These shortages will mean frequent delays in shipments of parts.

While the knitter always has some spare parts in the mill, naturally he cannot and will not have every part that he will need at some future date. Therefore, he must realize that any delay in replacing a worn-out or broken part will result in machine stoppage and cut down his production. Only



CLEAN PATTERN WHEELS by soaking them in a pan of turpentine. In this picture, Jack Starry is showing Mr. Levy the dirt he got off of one wheel. It is very important that the wheels be set properly.



CEILING FANS help keep the lint from settling on the yarn and needles. Mr. Levy is shown pointing out his fan installations to Joe Teitelbaum, Supreme Knitting Machine Co.

proper maintenance can cut down stoppages of this type.

1. Clean and Lubricate Machines Properly

Proper lubrication will prolong the life of any machine part. Yet many knitters are negligent when it comes to this form of maintenance. A light needle oil should be poured on sinkers and needles just prior to cutting off a roll. However, these parts should be cleared of lint and dirt by using compressed air prior to oiling.

A definite procedure should be followed by the operators in clearing the machine of lint and dirt. The top-stop motion is blown off first; then, the bottom tension ring; and last, the carriers. The operator should always point the air gun at these parts from the inside of the machine, and blow the lint away from the carriers. Large lumps of lint which might become lodged between needles or sinkers should be picked off with the fingers before the machine is put into motion.

With the machine in motion, direct air up through the needle and sinker slots. Then direct air pressure down through the needle and sinker slots. It is advisable to first direct the air current up through the cylinder, because most of the lint accumulates on top of the sinkers and needles; and it is very easy to remove it when in this position. However, it is much more difficult to dislodge lint which has crept or been blown into the needle and sinker slots.

The needles and sinkers are now ready to be lubricated with needle oil. With the cylinder in motion, oil should be poured from an oil can directly onto the needles and sinkers for one revolution of the machine. As the machine continues to revolve, a fine spray of the same oil should be directed at the sinkers and needles and also at the needle butts for one revolution. After this oiling, compressed air should again be directed through the sinker and needle slots. The purpose of this blowing is to remove any accumulation of excess oil and to dislodge any particles of dirt which may be loosened by the oil.

After each oiling, the knitter should check the fabric for oil streaks. Oil streaks, especially light ones, are difficult to see; and only close examination of the knitted fabric will locate them. If an oil streak is discovered, it should be traced to the particular needle and sinker which caused it. These parts should be removed from the cylinder, the slots blown out, and the needle and sinker wiped clean. Then put them back into the cylinder.

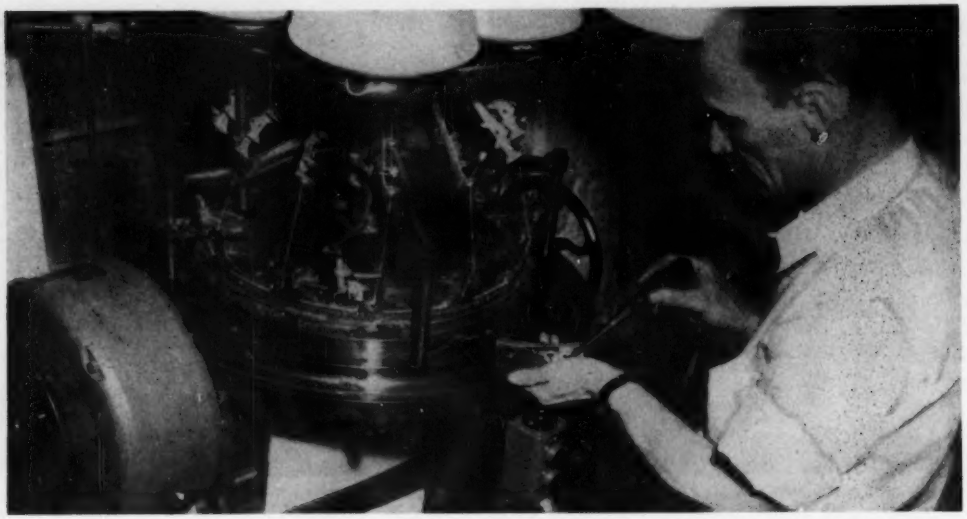
2. Keep Motors Clean and Well Oiled

Individual motors that are attached to knitting machines should receive careful attention. The accumulation of lint in a motor is a fire hazard and therefore should be removed. Most motors are partially open to allow ventilation; and it is through these openings that lint will settle and accumulate, even though you may imagine that the rotation of the motor would prevent lint from accumulating. Compressed air should be directed through one of the openings and then through the opposite opening. This procedure should be followed at least once a week and more often if needed. Motors that are idle should also be blown out at least once a week.

Motors that use grease usually are lubricated once every six months. When lubricating be sure that the bottom plug is removed first to allow the old grease to be forced out by the fresh lubricant.

If a machine is driven by a pulley, the pulley should be checked daily to see if it is too loose or too tight. A loose pulley will slip and slow down the machine, while a pulley that is too tight will put undue strain on the drive shaft and bushings. Shaft hang-

(*Continued on page 276*)



CAM SECTIONS should be thoroughly cleaned of gummed lint, and the cams buffed to fine finish, so that needles will ride smoothly to produce an even stitch. A light-oil flushing daily will do much to prevent lint accumulation.

For Maximum Production...

UNDERWEAR MILL Highlights Preventive Maintenance

▶ An "overhaul-the-works" program at Griffin Knitting Mills is supplementing the regular maintenance program.

▶ Each machine, in rotation, is taken to the machine shop and completely overhauled.

▶ Service-life-expectancy factors for all parts are being established so that parts can be replaced at the proper times.

By E. DALTON WHITE, McGraw-Hill Atlanta Bureau

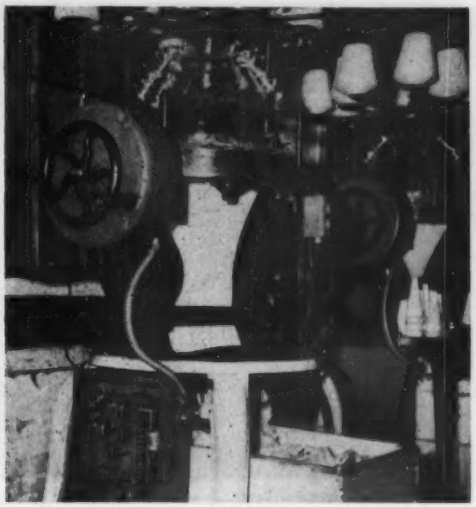
ANTICIPATED HECTIC DAYS AHEAD, as a result of past experience during wartime, President Howard M. Collier of Griffin Knitting Mills, Griffin, Ga., has ordered a general overhaul of all machinery and equipment. In addition, a complete inventory is being made of just how long a part can operate before replacement is necessary. The stockroom is getting a face lifting, and supplies are being assembled to meet replacement requirements.

All of this work is being done on an "in-between" basis so as not to interfere with normal production. The overhaul work is a sort of insurance, a hedge against possible future trouble at a time when maximum production is needed.

"Fix Everything for Maximum Efficiency"

A lot is being learned during this "fix everything for maximum efficiency" period. Employees have sensed the "feel" of what might come in the months ahead if there should be severe scarcities of critical parts and equipment. It has put everyone on guard to detect wear and machine maladjustment which might lead to breakdown.

This new "overhaul-the-works" order has not replaced regular scheduled maintenance, but has supplemented it on a broader scale. It has



INDIVIDUAL DRIVES and automatic stop motions have improved production and knitting quality. These mechanisms, together with guides and other attachments, are inspected daily as part of the new program of preventive maintenance to meet defense demands.

ALL CAMS from a machine are bolted together, ground, and buffed to a fine finish as a unit. This procedure makes for uniformity in size and shape, results in better-quality knitting, and saves time in cam adjustments.

provided a clearer understanding of just which parts wear faster than others and need replacing more often. Moreover, studies are being made to perfect means of reducing wear and extending the service life of parts.

Worn parts are not being discarded to the junk pile. But they are being carefully inspected, and any that can be used as emergency equipment are being preserved.

Needle Care Is Big Factor

The big factor in underwear knitting is needle care. While many knitters are of the opinion that nothing unusual can be done in this line, Griffin Knitting Mills has found that proper inspection, care, and schedule of replacement do much to extend service life.

It is far better to replace all needles at least once each year than to continue haphazard replacements indefinitely. Old needles are inspected, and those which are not worn too badly are soaked in light oil for about half a day. Then they are dried and stored, to be used as replacements when needed.

This method of complete replacement at one time insures uniformity of stitch and produces uniform-quality goods. If old needles were not removed and a complete new set installed, the chances are that many old needles would remain in the machine over a period of years. These old ones reveal themselves by making stitches smaller than those produced by newer needles.

Needles replaced by an entire new set are used as replacements on machines where needles show about the same wear. This procedure means not only a saving in needles, but also it makes for better uniformity in knitting.

Lubrication Important, Too

Another important factor which extends service life of needles and moving parts is proper lubrication. At least once each shift, the entire machine should be thoroughly lubricated. It is important that needles be well lubricated; otherwise there is risk of running dry, in which case the butts of the needles may get hot and break off.

Proper lubrication consists of about ½ pt. of lightweight, high-viscosity oil for every three or four knitting machines. Needles should be oiled to the extent that they are flushed to remove lint and prevent gumming. Excess oil should be kept to a minimum as the fabric will be damaged in absorbing the excess.

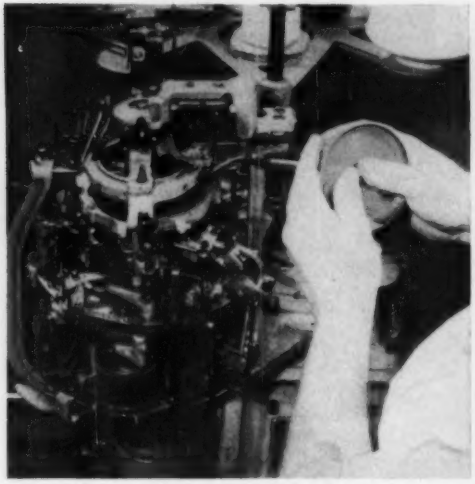
Cam Inspection and Care

As every knitter knows, bad cams can be troublesome and can put a machine out of production. At Griffin, every cam is inspected and buffed to a fine finish. One way to insure exact size and uniformity for each machine is to bolt together all cams of a machine, then grind and buff them as a unit to obtain the same size and shape.

This accuracy in grinding has many advantages. Not only does it make for uniformity of stitch, but the setting of one cam acts as a guide for setting the others when making adjustments. This procedure is a timesaver over the method of adjusting each cam individually.

Cam sections should be cleaned at least once every six months to remove any lint accumulation which may have become gummed with oil. Normally, good lubrication of needles will tend to flush this fine lint out of the cam section as well as the needles.

General overhaul of each machine includes guides, stop motions, gears, drives, cylinders, dials, and other working parts.



OIL NEEDLES AND SINKERS at least once every shift. Be sure to apply the oil slowly so that it won't flush up size and dirt into the knitting area.

CHECK THE CAMS for wear during the weekly clean-up, as Tom Efland and C. E. Martin are doing here. Nicked or worn cams cause undue strain on needle butts.

For Maximum Production...

Nine Keys to Maintenance of 400-NEEDLE MACHINES

The 400-needle model-K machines need good care if you are going to get the most out of them. You should—

- **Clean and oil frequently because most of the nylon yarn is heavily sized.**
- **Keep good cams in the machine and be sure that the dial is centered.**
- ***Adjust the timing, stop motions, clutch, and sinker leads to give best performance.***
- **Re-assemble the machine carefully if you have a breakdown—don't just throw it together again.**

By THOMAS D. EFLAND*, N. C. Vocational Textile School

* Mr. Efland is now on the staff of the School of Textiles, Clemson College. Parts of this article were furnished by C. E. Martin, head, Knitting Dept., N. C. Vocational Textile School.

AS WE PROGRESS FURTHER into the present mobilization program, it becomes increasingly important that all existing machines be given the best care possible, with extra care being taken to conserve repair parts and supplies. There is probably no better place to begin this conservation than with proper oiling and cleaning. Here are some ideas for you to use in keeping 400-needle model-K machines in good operating condition.

1. Oil Machine Each Shift

Since the needles and sinkers are the very heart of a knitting machine, they should be oiled at least once every operating shift with a good lightweight needle oil. A good oil for this purpose should be clear-white with a viscosity of about 320 Saybolt seconds.

The oil may be applied from a can over the top sinker ring, which allows it to work into the sinker slots and down the cylinder walls. The oil should be applied slowly so that it can

SET SINKER CAMS to give you the best results. Usually they are set at 0.120 in., but some knitters prefer a setting of 0.110 when they are running 15-den. nylon yarns.

PROPER CLUTCHING is important to smooth machine operation. Mr. Martin is shown adjusting the throw as he sets the eccentric-cam follower stud.

run down the cylinder walls without flushing up size and dirt into the knitting area.

In addition to the needles and sinkers, the machine in general should be oiled thoroughly with a light machine oil twice a week. Neglect of general oiling will cause undue wear on the shafts and gears of the machine.

2. Thoroughly Clean Weekly

Since most nylon yarn for knitting is heavily sized, it is necessary to give the machine a thorough cleaning once a week. The size will tend to load up the sinker slots and cause the sinkers to bind or stick. The best procedure for removing this size is to flush out the needles and sinkers with a cleaning fluid that will dissolve and remove the size.

To flush out a machine, idle the chain in the cut-out, and blow the head out with compressed air. A long nozzle with plenty of pressure is needed to clean the hard-to-reach places. Proper blowing-off will remove most of the hardened size.

Next, start up the machine and squirt plenty of the solvent on the needles and sinkers to flush up any size that remains. After a thorough flushing, the machine should be blown off again and then oiled in the usual manner. A cone of cotton yarn should be threaded and a yard or so of waste knit to remove the excess oil and dirt that will work up. This procedure also has a polishing effect on the needles and sinkers and tends to remove roughness and minute burrs.

3. Check the Cams for Wear

The weekly clean-up offers an excellent opportunity for the fixer to check the cams for wear and nicks. Worn or nicked cams usually can be detected by raising the latch ring and operating the machines empty, so that any flickers or bouncing in the needle line can be observed.

These nicks subject the needle butts to undue strain and quite often are reflected in the quality of the fabric produced. Small nicks or chafed places can usually be removed with a polishing wheel.

Worn cams, such as the stitch cams and sinker cams, must be reground periodically to restore the original shape. In regrinding a cam, as little as possible should be removed, with precautions being taken not to change the original slope or shape any more than is necessary.

4. Keep Dial Centered

Drop stitches in the make-up are an indication that the dial is not centered over the cylinder. A dial-centering gage should be used to position the dial properly. The timing of the dial should be checked in the make-up. During the make-up, the dial bits should extend on an exact center between the raised needles. If they are not centered, the necessary adjustment can be made at the dial-drive gear. All of the gears in the dial-driving train should be checked to see that they are meshed deeply enough to eliminate lost motion or back lash.

5. Check Stop Motion Often

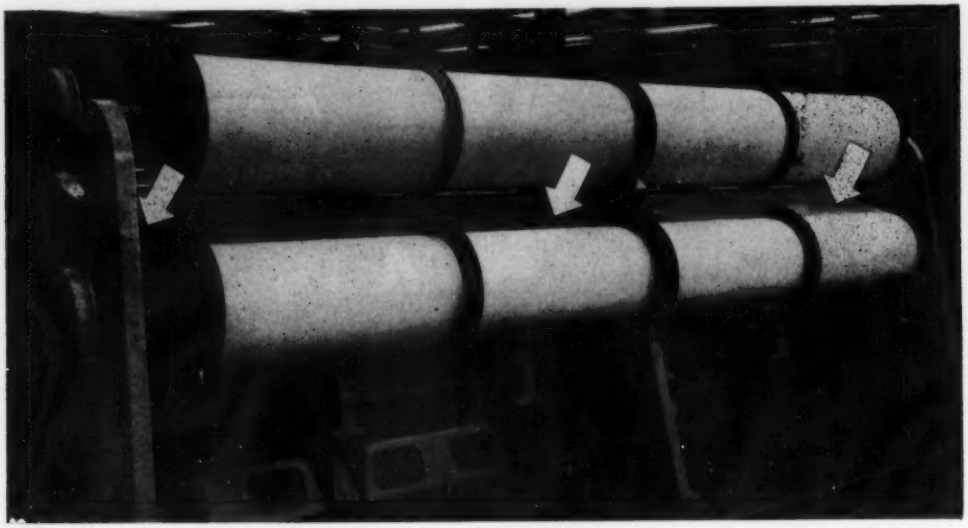
The stop motion should be checked often for ease of operation and sensitivity. If the motion binds and does not operate freely, it may fail to stop the machine and allow severe load-ups. Damaged needles will result.

6. Watch Switch-Cam Timing

A large part of the switch-cam trouble on a 400-needle model-K machine is due to faulty timing. The drum should be checked for worn or loose operating cams and for proper movement. The drum cams should be kept tight and the proper slope maintained on their leading edge.

The timing of the drum may be checked after the ring-toe kick and before the machine goes into the toe.

(*Continued on page 254*)



RELEVELING OF MACHINES should be done twice a year. The Aveco machine has leveling pads on the main beam as shown by arrows in this picture and also on the base. If your machine does not have leveling pads, the shafts can be used for releveling.

For Maximum Production...

Keep TRICOT EQUIPMENT In Top Shape and Up to Date

If he is to continue to compete, the tricot knitter must—

- **Keep equipment in top condition**
- **Replace obsolete equipment**
- **Be prepared to make all types of fabrics**

Here's how to inspect and recondition your tricot machines and equipment in a practical way.

By RICHARD F. ESHLEMAN
Textile Research Dept., Knitting Div., American Viscose Corp.

OF ALL THE FORMS of warp knitting, tricot is the only one that is growing. Tricot knitting is fast becoming an important branch of the textile industry. For the tricot knitter to continue to compete with the new, modern, efficient plant, he must seriously consider these three points—

1. Is your equipment in top shape? If not, it should be reconditioned.

2. Is your equipment up-to-date? Obsolete machines should be replaced.

3. Is your equipment versatile? Equipment should be able to produce all types of fabrics.

If you undertake a reconditioning program, it is important that you keep all slow-speed machines in operation while the reconditioning work is going on. In this way, you will lose a minimum of production.

If you are going to replace obsolete equipment, it would be best to do it when you are reconditioning your other machines.

Here is a good procedure to follow if you recondition your tricot plant. This procedure involves inspecting and reconditioning beams and preparatory equipment, and it gives detailed steps required to overhaul tricot machines.

1. INSPECT BEAMS

Every beam should be inspected for enlarged bores, worn keyways, rough edges, bent flanges, and cracked sections. In each case except the rough edges, the beam should be replaced. Unless a large number of beams is rejected, it may be a good idea to obtain an estimate on reboring the beams and placing a special bushing in each end. This is recommended only if the beaming is designed heavily enough on each end to remove enough metal for a special bushing in the keyway.

For polishing the beams, a special machine can be built; or it can be done on a machine-shop lathe. It is advisable not to do this type of work on the warper, because the dust and small particles of metal that may collect on the machine while it is polishing may later get on the yarn. A special machine built for polishing and cleaning the beams can be useful the year 'round to remove rough edges from flanges.

Equipment should be built for storing and holding the full beams for inserting the tricot-beam shaft. The beam should set on rollers so that they can roll freely in either direction for meeting the keyways. In many cases, mills slide the beams across the floor during this assembling operation. This is very often the reason for trapped ends along the flanges. Any designing of new equipment for holding the beams during the assembling should be done with the idea of using a lift truck. If you use a lift truck, you can order or make beams to give the maximum amount of yardage for the front and back bars.

PRESSER BARS should be reground when small grooves appear. This machine is set to remove 2/1,000 in. Before milling, each section of the bar should be checked with a micrometer to see how much it varies so that you can get an even cut.

GUIDES GROOVED by the yarn should be replaced. When the machine is inspected, the guides should be removed from the guide bar and cleaned. The guide rocker motion must be free of play and in good condition because of the high operating speed.

2. KEEP THE CREEL CLEAN

The creel should be thoroughly cleaned at regular intervals; the intervals will depend on the type of yarn being warped. The deposits of size or dirt between the tension will give uneven tension on the yarn. This deposit can be removed very easily by a small air hose from a portable air-compressor unit. In the change of yarns on the creel, the disk or the rod tension should be thoroughly inspected; and if necessary, it should be cleaned with an air hose or a cloth. A periodic inspection for wear should be made of the drop wires or stop motion, guides, and other sections that come in contact with the yarn.

In reloading the creel, place all cones on center with the first eyelet at a uniform distance from the guide. It is just as easy to place the cone in line as it is out of line. All tensions should be of the same weight and free to revolve during the warping operation. Any uneven tension can be noted by watching the slack ends during this operation. A continuous check should be made with a tensiometer to maintain a set tension from end to end.

3. KEEP BEAMER IN TOP SHAPE

A complete survey should be made of the beamer to determine the parts that should be replaced. The beamer should be completely overhauled—check and replace the belt and worn clamps for the beam centers, resurface and true the pressure roller, and thoroughly inspect all bearings.

The reed should be placed as close as possible to the beam to keep the rolling of the ends at a minimum. For safety, place a guard on the beamer to keep the operator from getting against the beam or pressure roller. The warping speed should be determined by each organization, because different types of yarn and various equipment are used in this operation.

4. FOLLOW THESE STEPS TO OVERHAUL YOUR TRICOT MACHINES

The tricot machine is usually equipped into separate motions, so that a system can be set up for reconditioning. In doing this type of work, it is very important to carry out the same procedure as if you were building the machine. This machine is the simplest form of any knitting machine and should be kept in the best condition. Just one example—the replacing of the needle bar is simple on this equipment as compared with a cylinder.

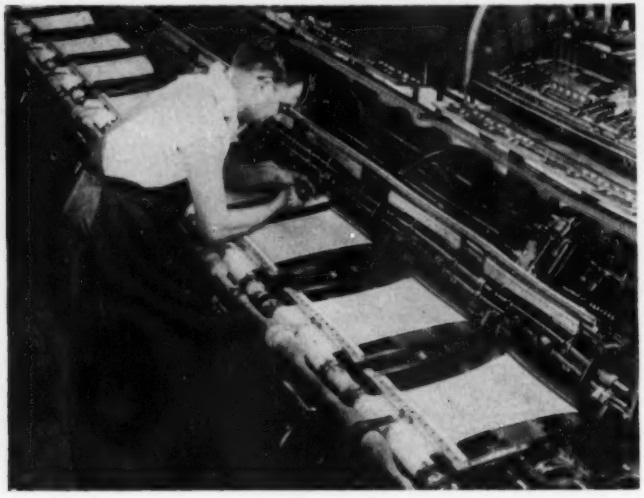
The machine specifications to follow for reconditioning should be as follows:

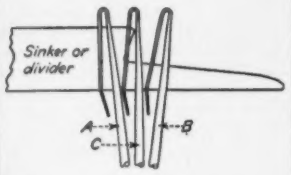
1. Frame
2. Drive
3. Needle motion
4. Sinker motion
5. Presser motion
6. Guide-bar rocking motion
7. Pattern mechanism
8. Warp control
9. Fabric take-up

Frame Reconditioning

The tricot machine is usually equipped with leveling pads located on the main beam and also on the base. The shafts can be used for re-leveling. This work should be done as per the instructions given by the machine builder. A regular program should be set up to have this work done twice a year to keep the machine in line

(*Continued on page 249*)





BAD SELVAGES are caused often by needles coming up out of position. You can get the proper motion by advancing or retarding the presser cams slightly. If the needles are in too far, as shown at *A*, additional loops are likely to be added to the selvage. If they are too far out front, as shown at *B*, selvage loops will be thrown off. The needle head should pass through the throat of the sinker as shown at *C*.

For Maximum Production...

Don't Forget Maintenance On FULL-FASHIONED Machines

Sure, you want production, but don't think you can neglect machine care—even if you do have new equipment.

- ▶ **Train fixers to do a good job of maintenance**
- ▶ **Keep the machines properly cleaned and oiled**
- ▶ **Use the right gages to do good job of setting**
- ▶ **Save needles by training knitters to straighten well**

By H. B. LeFEAUX, Consulting Editor, TEXTILE WORLD

THE AVERAGE full-fashioned hosiery mill today has stressed volume of production and new equipment so much that it may have been a little careless in training additional fixers to keep up this expensive machinery. Today more skill is required to service these machines than at any other time in full-fashioned knitting history. Most mills will pick a knitter; and with a fairly short course in fixing, expect him to keep up a number of machines; when actually years of experience are required to learn the motions of the machines and to do a good job in servicing them.

A full-fashioned machine is a complicated piece of machinery. Even the most experienced fixer, in order to properly fix machines, must have close temperature and humidity control in the knitting room to get top performance and quality from the machines. Experience in most mills shows that atmospheric conditions of 50% r.h. and 80° F. are most satisfactory for full-fashioned knitting.

High-speed knitting and fine yarns make fixing a complicated task; but it must be remembered that a fixer's main job is to get clear, even stitches, without lines and streaks.

1. Use a Gage Chart

A very important point to remember, especially for fixers on new welt-turner equipment, is to be sure and keep a gage chart handy in the tool

(*Continued on page 256*)

For Maximum Production...

Recondition Full-Fashioned Machines For WORSTED-HOSIERY Knitting

▶ **A proper sequence of adjustments for reconditioning full-fashioned knitting machines will help you avoid secondary adjustments.**

▶ **The ten reconditioning operations explained here will help you keep your full-fashioned worsted machines at maximum production.**

By WALTER A. SIMOND

THE TREND IN THIS COUNTRY for at least the past fifteen years has been toward very fine-gage machines, which are not suitable for full-fashioned worsted hosiery. Therefore, the coarser full-fashioned machines used today to make worsted hosiery are old, and they probably need a thorough reconditioning before they can reach maximum production.

Proper reconditioning of full-fashioned knitting machines depends on ten major adjustments. If these adjustments are made correctly, the necessity of secondary adjustments will be eliminated. The procedure outlined here will apply to all makes of full-fashioned machines.

Careful reconditioning will prevent stoppages except for replacement of damaged needles, points, sinkers, and other normal breakages.

Maximum production cannot be obtained unless the machines have been prepared properly for the work. Remember that time lost on a single head is multiplied by the number of heads in the long machines.

1. Clean Thoroughly

Oil spots on hosiery are hard to remove and often show up after dyeing. Lint of other fibers seldom color well when treated with worsted dyes. They usually take a lighter shade if they take any color.

2. Check the Frame Carefully

Since worsted yarns are highly elastic, but not so evenly elastic as most other yarns, it is very important for the full-fashioned machines to be absolutely level and straight. They should be tested with a good level, a line, and ⅛-in. diameter pins as in erection. It is just a waste of time to make adjustments when the frame is not in alignment from end to end.

3. Check Camshaft-Cams Timing

Be sure that the halves of the cams are in proper contact. First, gage the shogging cams, and then gage the series cams with the camshaft held firmly. Examine the springs that hold the cam-follower rolls against the cam contours. After you release the camshaft, test the needle-bar springs.

Hold a light so that you can see if the springs have tension enough to prevent the cam-follower roll from leaving the high inserts when the machine is running at its highest speed. Many stockings have been weakened or cut by failure there. A loose needle-bar lever will cause the same trouble. Check the cam inserts and repair as needed.

4. Inspect the Needles

It is doubtful if a satisfactory worsted stocking can be made on finer than 39-gage machines, or with worn-out needles. Probably few people know how much the needles wear in a long period, or what the average life of spring needles is. It is easily determined by dividing the number of needles in a machine by the weekly average of needles used by the knitters. That is: For a 39-gage machine, 26 needles per in. times 14 in. per head times 30 heads equals 10,920 needles per machine. Divide this figure by a use of 50 needles per week gives an average life of a needle of 218.4 weeks —approximately 4 years and 4 months at 50 weeks per year.

When the needles show too much wear, or poor alignment from pliering or excessive use, the needle bars should be reneedled and carefully realigned. However, if the needles are in fairly good condition, they may be improved by correction of low, high, or twisted beards.

When the sinkers have worn into the bottoms of the slots in the sinker heads, gage for the heights of the needles and knockover beds by pushing the sinkers back under the catch-bar. Gage from the top of the sinker-head bottoms. Now, set the pressure-cam follower rolls.

5. Examine Sinkers and Dividers

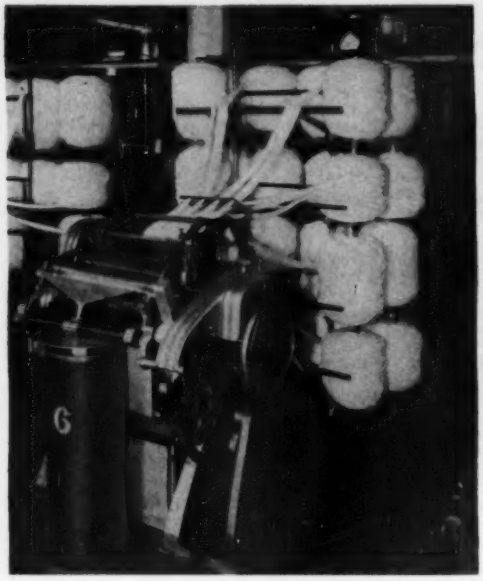
Sinker-throat wear will be found greatest in the center of the heads; such wear sometimes deforms a stocking with short stitches. Never mix new and old sinkers in replacements. Sinkers worn heavily where they strike the verge plates will draw stitches too long.

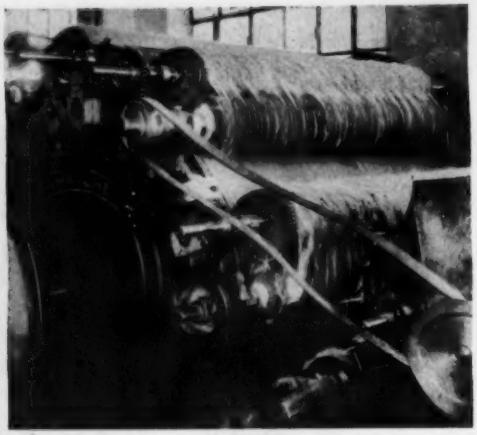
Also, sinkers and dividers must be straight, smooth, free from roughness, and more freely in their slots to form uniform stitches. Often, it is best to resinker the machines.

6. Check Verge Plates, Jacks, and Jack-Springs

Verge plates notched by the hammering of the sinkers need to be resurfaced or replaced. Bent or worn jacks or bent jack-bed plates should be carefully straightened or replaced. Never mix old and new jacks in a head. Next, test the jack-springs for pressure. Then adjust the heads for length of stitch, with a correct clearance of not over a sinker thickness at the back edge of the verge plates.

(*Continued on page 274*)





IN CARDING, wire must be sharp and care must be taken not to increase the number of neps in the stock.

RECTILINEAR COMBS in place in the U. S. have increased by more than 20% since 1943. They can be used for wools, blended stock, and synthetics from 1 in. to 8 in. in average staple length.

Short-Wool TOP MAKING
Requires Special Care

Short wools that combers are being forced to use must be handled with special care in preparatory processes if good results are to be obtained. Here are step-by-step pointers on scouring, carding, gilling, and combing short wools that will help produce good tops.

By VICTOR SAXL, *Vice President, Stellite American Corp.*

THE WORLD-WIDE SHORTAGE of wools and particularly the shortage of suitable combing wools has forced topmakers to use wools of shorter staple in ever-increasing quantities. Some of these wools used for combing today are only slightly longer than 1 to 1½ in. in average staple length.

In former years top makers used so-called combing wools with staple length of from 2½ to 3 in. upwards for combing. Wools of shorter staple length, especially those of 1¼- to 1½-in. average staple—clothing or woolen wools—were used predominantly for woolen yarns.

The converting of these short wools into a good, even, and marketable top requires special attention in processing. Many combers are aware of this fact and are installing machinery which is suitable for handling these short wools.

Because these short wools can be combed successfully only on the rectilinear combing machine, this comb has grown in importance and has found wider use than ever before. Since 1943, the number of rectilinear combs in U. S. mills has increased by more than 20%, while the number of Noble combs has decreased slightly.

The rectilinear comb is suitable for handling wools, blended stock, and synthetics from 1-in to 8-in. average staple length. The tops produced can be spun on the Continental type (French), American, or even Bradford system if materials of suitable staple length are selected and handled in the ordinary manner.

But short wools have to be handled with special care during all preparatory processes, and considerable experience is needed if good results are to be obtained.

SCOURING—
Avoid Strong Chemicals, High Temperatures

Wool washing is a delicate operation the outcome of which has great influence on all further processing steps. Care in scouring is, naturally, of added importance in the processing of short wools.

Excessive washing and use of too-strong chemicals is just as bad as insufficient scouring. High temperatures in washing and drying must be avoided. The water-temperatures should not exceed 130° F. The highest temperatures in drying are used when the wool enters the apron dryer and should not exceed 180° F. The

wool should contain about 20% humidity when leaving the dryer.

The wool must not be felted in scouring. Fortunately, some of the newer designs of scouring trains are built specially for washing of short wools. The machines are equipped with a carrier or crab which takes the wool from the rake and passes it continuously to the rolls. The carrier combs a thin and even sheet of wool over the partially submerged crab table to the press rolls (dry nip).

Scientific methods and controls are available to help the washer to determine which chemicals for washing are most suitable and which temperatures should be used in washing and drying to obtain the best results. The up-to-date washer should use these new scientific methods to achieve high production at low cost and to insure clean, lofty, and open wool.

CARDING— Maintain Staple Length, Avoid More Neps

Short wools must be carded with special attention. These short-staple wools tend to roll and to form neps. Therefore, setting must be done very closely. The carding action should be gentle, yet flocks must be properly opened and a uniform web formed.

It is of paramount importance that the staple length be maintained. Rather than to open the majority of neps, it is preferable to leave them for elimination in the combing. Forming of additional neps must be prevented under all circumstances.

When a new lot arrives, the wool should be examined; and the experienced carder should be able to select the most suitable cards for the new lot, the speed of the cylinder and other rollers, and the settings.

A sample of the carded sliver should be taken after a short running period. Sliver must be examined to be sure that no excessive fiber breakage has occurred or that no additional neps have been formed. Based on the results of the tests, adjustments in the settings or speeds of the cards should be made.

Final judgment as to whether the wool was carded properly can be made on the combs. The noilage and the number of neps in the tops are the indicators.

Most types of cards are suitable for processing these short wools, but card clothing must be very sharp.

Some combers claim that the cards with fillet clothing handle short wools more gently, but others feel perfectly satisfied with the fully metallic card.

Morrel burring rollers are recom-

(Continued on page 262)

These Calculations Can Be Useful in Running Rectilinear Combs

Specifications: (assumed figures)

L = Longest wool fibers: 3 in. (disregarding a small percentage of longer fibers)
G = Gage of comb: 19 mm. (about 0.75 in.)
FL = Feed length: 6 mm. (about 0.25 in.)
N/M = Nips per minute: 110
FW = Feed weight of normal-width comb: 24 slivers of 135 gr. per yd. each, total 3,240 gr. per yd.
N% = Percentage of noils: 13.8% (assumed noilage)
DTR = Diameter of take-off roller of comb: 7/8 in. (0.875 in.)
DW = Weight of sliver delivered from comb: 350 gr. per yd.
EFF = Efficiency of comb: 92%
C = Coefficient for purity of tops

1. Production of combs:

$$\frac{N/M \times 60 \times EFF \times FL \text{ in in.} \times FW \text{ in gr./ yd.}}{100 \times 36 \times 7000} \times \frac{100 - N\%}{100} = \text{lb. of tops/hr.}$$

$$\frac{110 \times 60 \times 92 \times 0.25 \times 3240}{100 \times 36 \times 7000} \times \frac{100 - 13.8}{100} = 16.8 \text{ lb. of tops/hr.}$$

2. Calculation of theoretical values for shortest fibers in tops and longest fibers in noils (theoretical border values) in inches:*

$[G - (0.5 \times FL)]$ = border value in inches
$0.75 - (0.5 \times 0.25) = 0.625$ in.

3. Calculation of purity of tops:

$C = G - FL - (0.5 \times DTR)$
$C = 0.75 - 0.25 - (0.5 \times 0.875)$
$C = 0.063$

The higher the value of coefficient C, the cleaner the tops.
If the feed length is being increased, the gage must also be increased to obtain tops of the same purity.

4. Calculation of the practical draft:

$$\frac{FW \text{ in gr./yd.}}{DW \text{ in gr./yd.}} \times \frac{100 - N\%}{100}$$

$$\frac{3240}{350} \times \frac{100 - 13.8}{100} = 8 \text{ (practical draft)}$$

5. Calculation of the approximate percentage of noils:

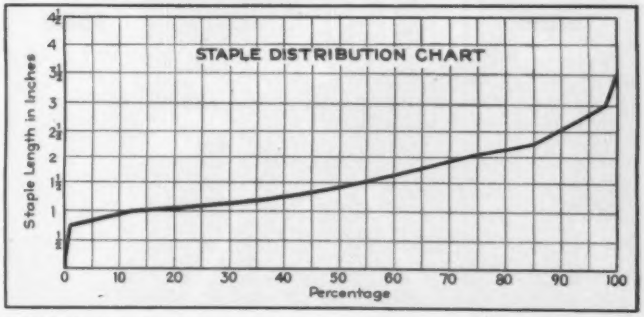
(developed from Formula 2 by Prof. Dr. Otto Johannsen, Reutlingen*

$$\frac{100 \times 3.2 \times [G - (0.5 \times FL)]^2}{L^2} = \text{Percentage of noils}$$

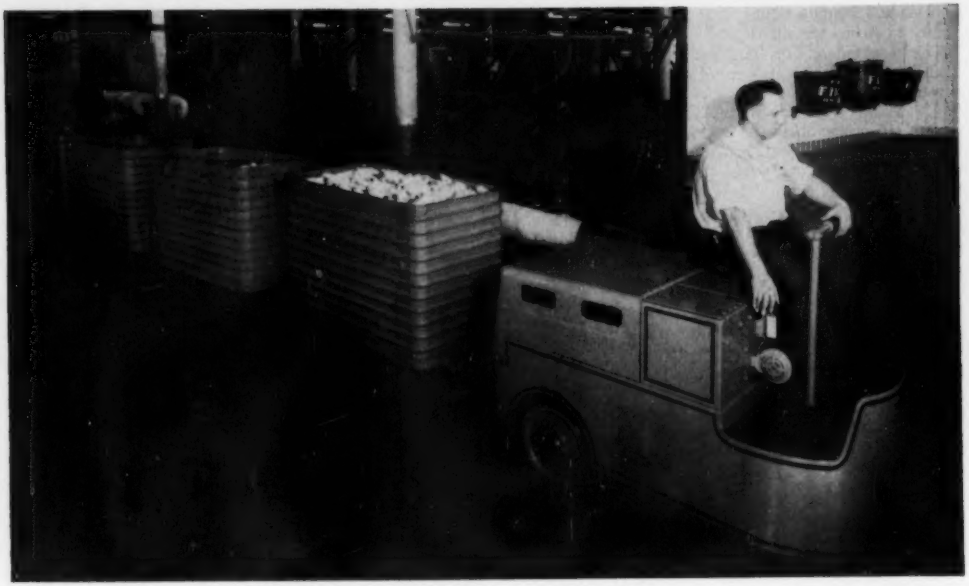
$$\frac{100 \times 3.2 \times [0.75 - (0.5 \times 0.25)]^2}{3^2} = 13.8\% \text{ of noils}$$

The percentage of noils decreases with the increase in feed length.
The percentage of noils increases with an increase in the gage length.

* These calculations are valid for combs with feed during take-off motions (PL, PLB, and other types).

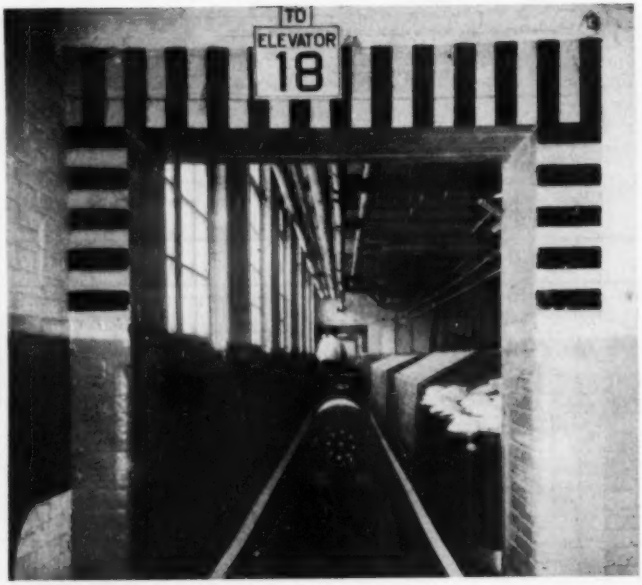


STAPLE LENGTH of typical short wools, as shown by the staple diagram, is over 95% under 3 in.



CORRUGATED-STEEL BOX TRAILERS of rugged construction are used to handle bobbins, cones, cheeses, tubes, and dye springs

Electric TRACTOR TRAIN



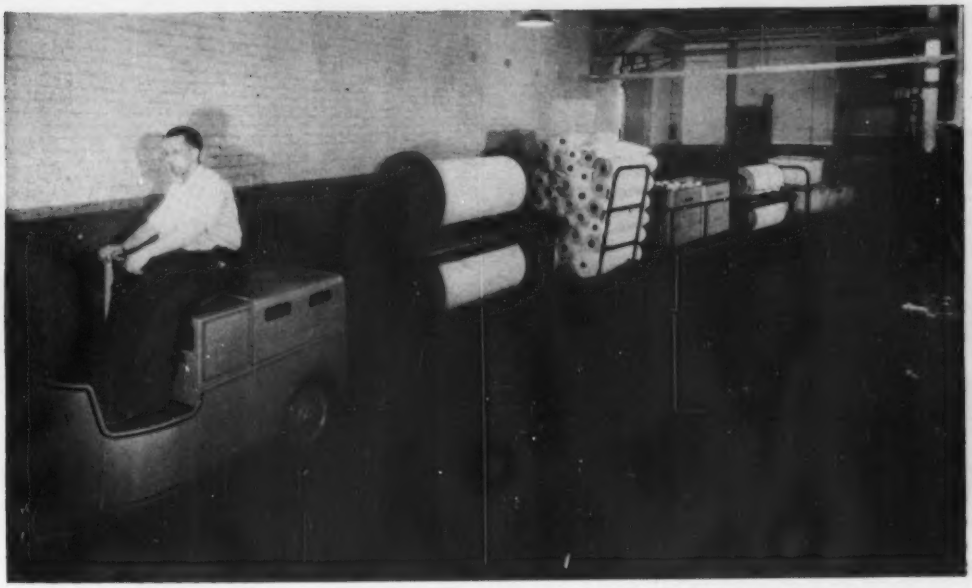
TRAILER ROUTE is marked with yellow lines as a safety precaution. Doorway arches are painted with black and yellow stripes.

- *Wide variety of packages handled —beams, bobbins, cones, cheeses, cloth, and others*
- *Plant alterations made for tractor train, but installation will be amortized in two years*
- *Other indirect benefits gained as by-product of system*

By W. B. McGUIRE
P. O. M. Co., Industrial Consultants
Werner Textile Consultants

Montreal Cottons Ltd., Valleyfield, Quebec, recently put into operation an intra-mill tractor-trailer transportation system which promises to save the mill over $25,000 yearly in handling costs. Electric trucks and trailers have been in use for decades, but this project is unique in the degree to which this equipment has been adapted to the special requirements of a textile mill.

Here are some of the items which are carried safely and swiftly through-



VARIETY OF PACKAGES can be handled by the tractor train—warper beams, cloth, bobbins, loom beams, etc.

Saves Over $25,000 Yearly

out the plant by the tractor-trailer train:

Roving bobbins
Warp spinning and filling bobbins (includes handling to and from conditioning & stripping rooms)
Twister bobbins
Spooler cheeses
Winder cones and tubes
Dye springs
Section beams
Loom beams
Cloth in folds
Cloth in rolls
Cloth in bales
Waste and sweeps from all departments

Trucking Formerly Cost $40,000 Yearly

When the preliminary survey of the handling problem began, direct intra-mill trucking alone was costing the company over $40,000 yearly. Here's why:

- All trucking was being done manually.
- The number of truckers and the volume of traffic involved was such that the traffic through the mill was very heavy and often congested.
- The distance covered by truckers in 10 hr. amounted to over 65 miles.
- Many trucks, baskets, boxes, etc., were being used interchangeably between departments. Shortages and dislocation were the result.
- Methods and equipment used were responsible to some degree for damage to goods.
- No single authority existed over the general intra-mill transportation.
- Each department has its own truckers who were sent where, when, and as needed to deliver and pick up all items.

How the Problem Was Tackled

After a few observations in the plant, standard production and traffic studies were made. Careful analysis of existing handling labor and equipment in use indicated that potential savings through modernization would be substantial. Work for the next several months proceeded in four steps:

1. Theoretical development of the mechanized-handling scheme to meet the plant's normal and special requirements.
2. Physical changes, alterations, and repairs necessary in the plant to allow for maneuverability of the tractor-trailer transportation system.
3. Practical engineering, specifying power and locomotive requirements; detailed design of trailers and calculations of quantities required for each type of product; purchasing and expediting.
4. Planning and execution of a labor-reduction program.

The First Step—Planning

1. Production figures were obtained from all departments.
2. Diagrams were drawn up indicating the flow and routing for every item to be transported.
3. All personnel involved in trucking and handling, both full and part time, were listed.

The basic plan devised aimed toward replacement of manual trucking by electric tractors and trailers. A central intra-mill traffic system was to be established and an overseer placed in charge. Two tractors were required: one to operate on two levels

(Continued on page 240)

ATTENDING THE CLINIC were manufacturers, cotton merchants, breeders, and fiber-research men. M. Earl Heard, vice president, West Point Mfg. Co., Shawmut, Ala., was chairman of the advisory committee for the clinic.

COTTON RESEARCH Points to Road Ahead

▶ *The National Cotton Council Clinic held recently in Pinehurst highlighted work being done on cotton-fiber and processing research.*

▶ *Here are some of the outstanding points of interest to mill men—*

- *. . . SRRL opener is especially good for low-grade cottons*
- *. . . Type and number of standard opening and cleaning machines has little effect on the ultimate cleanliness of yarn*
- *. . . High-speed winding is being developed to remove peppery trash*
- *. . . Much of the variance in yarns is caused by inherent variation within fibers themselves*
- *. . . Fiber strength tested with 5-mm. gage does not always agree with results of tests at zero gage*
- *. . . Chemical modification by simple process can "tailor" cotton to given end uses.*

By W. A. THOMASON, JR., Southern Editor, TEXTILE WORLD

OVER 100 RESEARCH AND MILL MEN met at the recent Cotton Research Clinic at the Carolina Hotel, Pinehurt, N. C. The clinic is sponsored each year by the National Cotton Council to discuss research and processing. Men prominent in the industry spoke on mechanical processing of cotton, the influence of cotton-fiber structure on properties, measurement of cotton-fiber properties, special military needs in cotton goods, and problems in the industry as a whole.

The clinic did much to give the fiber-research and mill men a common goal to work toward; it also gave them a better understanding of each other's problem.

Here are the highlights of the discussions of interest to mill men.

MECHANICAL PROCESSING OF COTTON

SRRL Opener Discussed

The SRRL-type cotton opener was described as being especially good for low-grade cottons by Ralph Rusca, Cotton Mechanical Processing Div., Southern Regional Research Laboratory, New Orleans, La. The need for better cleaning by mills has been brought on by the increased use of mechanical cotton pickers. Last year approximately 15% of the total cotton acreage was harvested by mechanical means, it was reported.

The SRRL opener utilizes a series of gin-saw type cylinders and air currents to give the cotton a gentle opening. Tests have shown that the opener does not damage fibers and that it gives excellent blending. The opener itself does not clean, but it enables

subsequent machines to do a better job of cleaning.

Mr. Rusca stated that less waste, percentagewise, is removed by the machines doing the cleaning, but also less waste is left in the picker lap. This statement indicates that less spinnable fiber is removed in the cleaning processes.

Cylinders of the SRRL cleaner can be covered with different types of wire for different situations. Tests have been run using coverings as coarse as gin-saw teeth to clothing as fine as wool-card wire.

Cleaning in Mills Evaluated

An extensive experiment has been conducted by Pepperell Mfg. Co., Lindale, Ga., to evaluate cotton cleaning in the mill, reported Robert O. Simmons, assistant superintendent. Tests have indicated that the type and number of standard opening and cleaning machines has little effect on the ultimate cleanliness of the yarn.

For example, when the opening line was set up to remove much of the waste, comparatively little waste was removed by the cards. On the other hand, when little or no waste was removed in the opening line, the cards removed a much greater percentage than normal. With all systems that were tested, approximately the same total amount of waste was removed, up through the cards.

Under absolute maximum and minimum cleaning conditions, however, neps increased with maximum cleaning, and actual trash count increased with minimum cleaning.

High-Speed Winding Removes Peppery Trash

A project, still in its infancy, to clean yarn of peppery trash by high-speed winding was discussed by E. C. Gwaltney, vice president and director of research, Saco-Lowell Shops, Biddeford, Me. The project was started at the request of Barber-Colman Co., who wanted experiments run on high-speed winding.

The idea of cleaning by high-speed winding was hit on after it was found that a tremendous amount of trash and neps were removed from the yarn, when the yarn speed ran up to about 1,800 yd. per min. With a bright light on the bobbin, the motes being thrown off are said to look like hornets coming out of a hornet's nest.

The mill men who have seen this set-up agree that from one-half to three-quarters of the peppery trash was removed from the yarn by the high-speed winding operation. The yarn is said to retain its strength after high-speed winding, and the chief difference between this yarn and conventionally wound yarn is that the yarn wound at the high speed is much cleaner.

Mr. Gwaltney stated that the problem of high-speed winding is largely a matter of building the bobbin. He said that a great deal of work is being done on this problem; and he believes that a bobbin can be built which can be wound on at any speed provided the tension developed is not so great as to cause serious yarn breakage.

As an example of the procedure, no trouble was experienced in winding a rather poor grade of 30s yarn at 1,870 yd. per min.

TOM KERR, foreground, fiber technologist, Plant Industry Station, Beltsville, Md., gives his views on fiber structure in a discussion following a talk on that subject by Helmut Wakeham of TRI, Princeton, N. J., standing on the rostrum.

METHODS OF DETERMINING fiber strength were discussed by J. K. Phillips, (right, standing), Research Div., The Goodyear Tire and Rubber Co. Dean Hugh M. Brown, School of Textiles, Clemson College, is on the stage leading the discussion on the subject.

INFLUENCE OF COTTON-FIBER STRUCTURE ON PROPERTIES

Shape and Structure Influence Luster

The degree of luster in cotton is influenced by the internal structure of the fiber, said Lyman Fourt, Harris Research Laboratories, Washington, D. C. Dr. Fourt studied over 200 varieties of the 1950 cotton crop to determine the influence of fiber characteristics on the luster of the cotton. He found that luster varies with the shape and structure of the fiber, and that fibers with greater luster generally have greater strength.

The degree of stretch in mercerization also affects luster of the yarn, said Dr. Fourt. Generally, greater stretch gives greater luster. His tests have also indicated that variation in the sequence of finishing operations affects the degree of luster that a yarn will have.

Fiber Structure Studied

"We are studying cotton from the molecule to fabric so as to establish basic principles of relationships between fibers and yarns or fabrics," said Helmut Wakeham, Textile Research Institute, Princeton, N. J. One phase of this study involves a search for the factors which cause a fiber to be strong or weak.

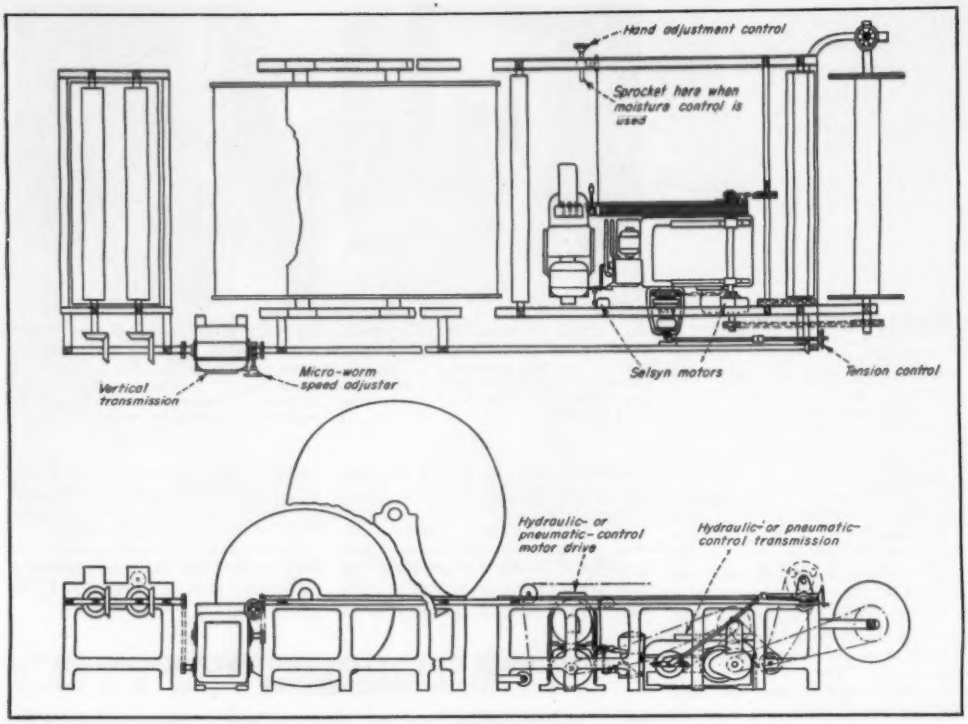
The cotton fiber, explained Dr. Wakeham, may be compared with a chain. If the links of a chain are of different sizes and shapes, the weakest links will break before the stronger ones will. The cotton fiber is made up of links of all sizes and shapes, and the amount of variation within the fiber determines the strength of the fiber.

For example, a variety of cotton which has fewer weak links than average will have greater strength than average. However, it may be that the weak links of this variety are weaker than average. In this case, the fibers as a whole would be stronger; but individual fibers would tend to break more easily.

TRI has found that the weakest links in fibers are located at two points. One is at the reversals of the fiber, which occur at random locations. The other is between the reversals and are apparently structural defects, such as kinks, split places, etc. Some cottons differ from others in the number of reversals per unit length and in inherent strength at the reversals.

Dr. Wakeham pointed out that usually mill men throw out low readings on fiber-strength tests as bad bundles, when it may be that the sample is weak. At TRI, a quick precision method of making single-fiber tests has been developed, so that it can be

(Continued on page 268)



SCHEMATIC DRAWING shows complete slasher drive as applied to 2-can cotton-type slasher, including main drive, beam drive, and stretch control.

SLASHER DRIVE
Improves Beam Uniformity

- ***New England mill gets automatic, accurate control of tension and operating speeds with new drive***
- ***Simplified, low-cost design avoids use of complicated electrical equipment***
- ***Design and construction of mechanism promises economical maintenance and long operating life***
- ***Better slasher and loom production obtained***

By E. H. HELLIWELL, *New England Editor, TEXTILE WORLD*

A NEW SLASHER DRIVE is giving excellent results on rayon-and-wool blends in one prominent New England mill. Uniform tension obtained by the drive has reduced the amount of weakened yarn, and the uniformity of the beams has improved the operation of the looms. Better production is being obtained on both slasher and looms. It is expected that more uniform operating speeds and tensions will reduce waste on slashers and improve the quality of the finished goods.

Counts being run are from 24s to 40s. Ends on a 69-in. beam vary from 4,000 to 6,600, with speeds from 40 to 60 yd. per min. The maximum amount of yarn is put on each beam.

In selecting a slasher drive, the mill insisted on accurate and positive control of speeds and tensions on the slasher from the creel to the winding of the finished beam. Previously used manual controls failed to provide flexibility in speed range and adjustments. Automatic, immediate, and accurate methods of control, to meet changes and variations, were set as requirements for efficient slasher operation.

The mill also wanted automatic speed controls, which, to be effective, were simple, easy to operate, and economical in initial cost, installation,

and maintenance. Also desired by the mill was a drive free from complicated, electrical hook-ups beyond the ability of the average mill electrician to service.

With these essential considerations in mind, a Reeves Servo-Control slasher drive was installed in this mill on an Uxbridge hot-air slasher. Tests made on a range of blended-yarn counts show beams of uniform density wound with even tension from start to finish of beam. Reeves stretch control and Barber-Colman moisture control units were also used for control of these variables.

The slasher drive used in this mill consists of one motor and three control units. The main drive provides a 15 to 1 speed range for "creep," "jog," and "run" speeds as desired. This new main drive gives controlled acceleration and deceleration, and has the ability always to return to the exact running speed being used. The pushbutton stations are designed so that the slasher always starts at "creep" speed.

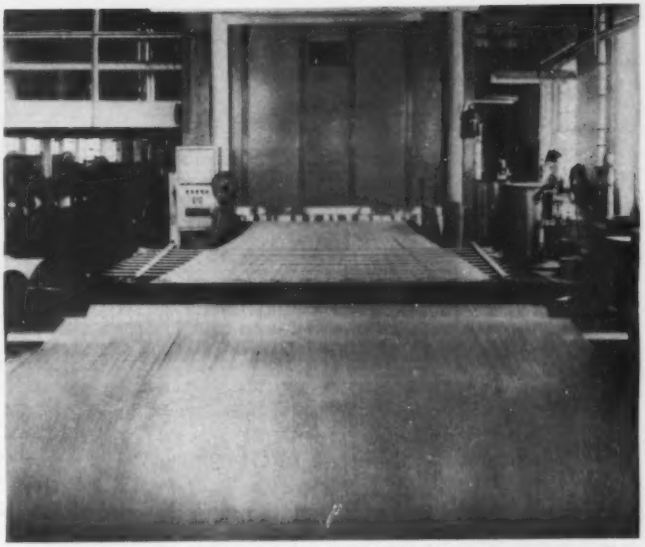
The speed accelerates smoothly under control to the yards-per-minute speed desired. Changes in speed from "creep" to "run" and back again are under positive control. This system prevents yarn breakage at the present high operating speeds used in this mill. Moisture-control equipment is connected to the main drive hand-wheel control shaft.

The beam drive with Servo control in conjunction with a Reeves variable-speed transmission maintains an accurate and uniform control of tension in winding yarn on beams. The old friction clutch is eliminated. The output shaft of the variable-speed transmission drives directly to the beam shaft through a new type of controlled-slip drive.

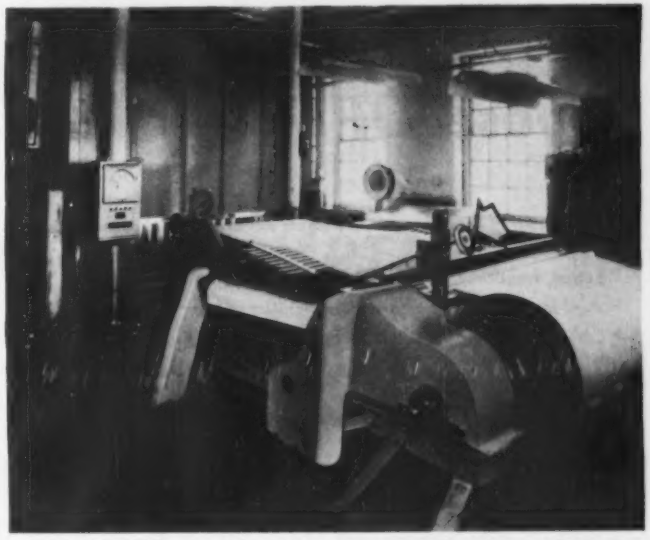
Stretch control for regulating tension on the yarn between creel and delivery roll is obtained through a standard transmission with a micro-adjusting hand wheel. The percentage of stretch can be held closely at any desired point. Adjustments give the operator control of speed of size rolls and thus maintain and control the tension between the size rolls and the delivery roll.

The beam-control unit drives directly to the loom beam, and the old friction clutch is entirely removed. The diameter of the beam increases as yarn is wound on from the delivery roll. The speed of the beam shaft is reduced by the Servo control which compensates for the increase in beam size and maintains the surface-winding speed constant. This close, immediate-acting control system makes a beam of uniform density with even tension on the entire beam. The beam drive may be set for any tension desired on the yarn being run. This tension will remain constant until intentionally changed. Any running speed or tension run on previous sets may be easily duplicated by this mill on following sets.

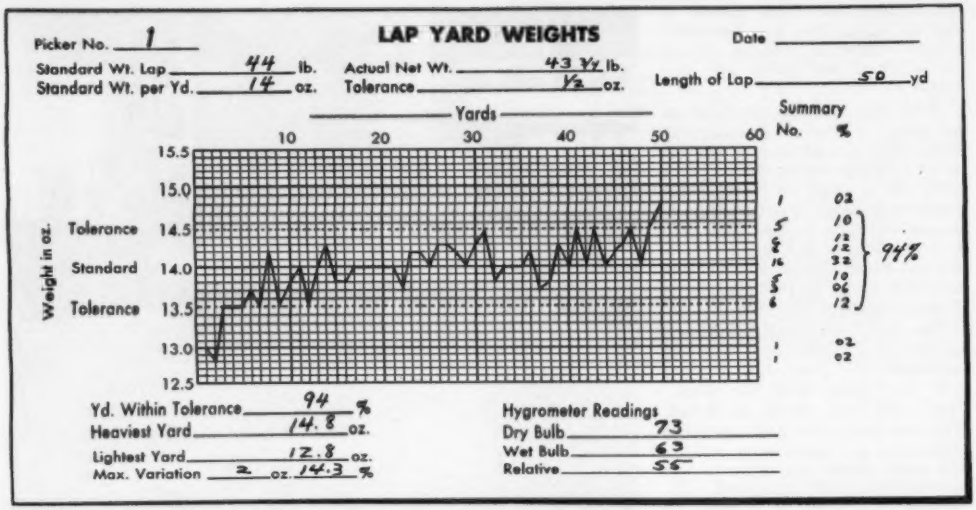
The servicing of the equipment was quickly learned by regular mill mechanics with a few instructions. The complete slasher control requires but a small amount of floor space. The main drive and the beam drive are installed under the head end of slasher and occupy space otherwise wasted. Stretch-control units are closely fitted to the side of the slasher. All operating parts are concentrated within a small space and are easily accessible for regular lubrication and necessary inspection.



WOOL-RAYON BLENDS of counts from 24s to 40s are slashed at 40 to 60 yd. per min., with ends per beam varying from 1,000 to 6,600. Hot-air slasher is used.



NEW SLASHER DRIVE has parts neatly inclosed and requires a minimum of floor space.



PICKER LAP YARD-WEIGHTS can be recorded directly on a chart. The 8x5-in. card is handy for filing and gives all necessary information for checking on the uniformity of picker laps.

Picker Lap-Weight Charts Expose OPERATING FAULTS

- ***Close study of yard-by-yard lap weights will often reveal causes of irregularities in the picker itself***
- ***Extent, frequency, and trend of variations are clearly shown***
- ***Yard-by-yard weighings are more significant than total-lap weights***
- ***Correct interpretation of charts can indicate faults in equipment, adjustments, or operation***

By E. H. HELLIWELL, *New England Editor Textile World*

A REGULAR SCHEDULE for full finisher-lap weighing is accepted as an essential procedure in all well-managed cotton mills. Some stringent schedules call for weighing and recording every finisher lap. Other mill managements are satisfied with an hourly weighing from every picker.

Tolerances for variation in net lap weight are usually ½ lb. above or below the established standard weight. This close tolerance of about 1% is achieved by many mills, and rejected laps are held down to a low point of 3%. Correction of lap weights to prevailing moisture regain is necessary to maintain this low rejection figure.

The real story of lap-weight variation is not disclosed until the lap is analyzed yard-by-yard. Comparatively large variations between individual yards can exist in a lap whose total net weight is close to standard weight. These yard-weight variations are more significant than full-lap variations. Each off-weight yard is drafted out to many hundred yards of yarn. The limited number of doublings in modern mill processing reduces the probable equalization of these short-length variations.

Old Method Is Tedious

Old methods of getting yard-by-yard weights of laps involve a lot of time and labor. This trouble has led to neglect of this important detail with infrequent yard weighings in many mills. The old way is to unroll the lap on the floor; then a yard-frame it placed on it; and then individual yards are trimmed off and weighed. Weighings made to ¼ oz. are listed, and variations are then estimated. Graphic charts show these variations more clearly and simplify the calculations for comparative variations.

The automatic lap meter greatly reduces the time required to weigh a whole lap in individual yard weighings. The precision of the weighings is increased, and the real importance of the yard weighings is more generally recognized. The chart on which the yard weights are plotted permits a ready analysis of the nature and magnitude of yard-weight variations, and also can be kept as a permanent record.

Tolerances with either yard-frame or lap-meter yard weights are usually set at ¼ oz. per yd. This tolerance is about 4% on a 14-oz. lap. The practice in some mills is to ignore the

(Continued on page 332)

MODERN PRESSURE DYE VATS automatically controlled and instrumented soon pay for themselves in day-to-day operational savings.

Reduce STEAM CONSUMPTION With Control Instruments

▸Various methods of dye-temperature control are available that save steam and fuel. Low-temperature dyeing, thermally efficient vats, and throttle-type steam controls are among the methods that can bring savings.

By LEO WALTER

INSTALLATION OF thermostatic controls in dyeing can (1) produce independence from inevitable human errors, and (2) save steam and fuel during dyeing. Both purposes are highly desirable, and can be achieved simultaneously with resulting benefits to all concerned.

A great incentive to the wider use of automatic controls has been the introduction of low-temperature dyeing. This process has necessitated the automatic holding of liquor temperature more closely than the usual "boil" at actual boiling point. The latter method at atmospheric pressure in open vessels cannot produce over-temperatures because boiling has to take place somewhere around 212° F. It can be a terrific waster of steam.

Dye liquor boils under normal atmospheric conditions in open-topped vessels at approximately 212° F. (100° C.), irrespective of rate of steam input. Steam consumption is required for the following purposes: (a) for heating up the liquor to the boil, (b) for heating up the vessel from cold, (c) for replacing heat losses from the liquor surface and the walls of the dye vessel to the surrounding air, (d) for heating up textile fibers after immersion in the dye bath, and (e) for providing agitation of the dye liquor by means of steam bubbles. These bubbles may pass uncondensed through the liquor to the surface, and thus produce the well known steamy dye-house atmosphere.

STEAM CONSUMPTION. An approximate steam-consumption curve for heating up an open-topped vessel shows a steeply rising curve, when starting from cold up to a maximum rate. The curve then falls until the boiling point has been reached, and afterwards shows a steady rate of

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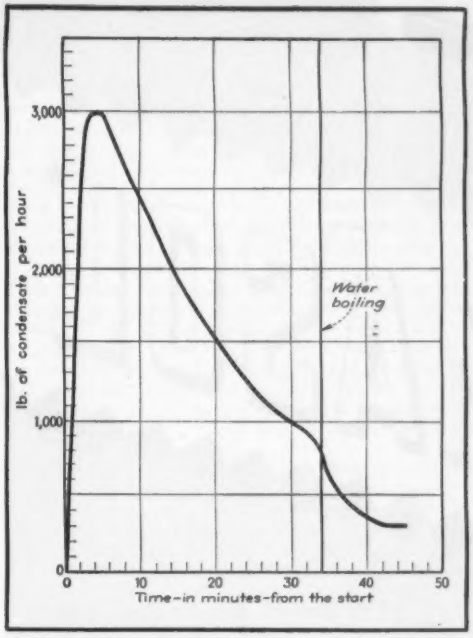
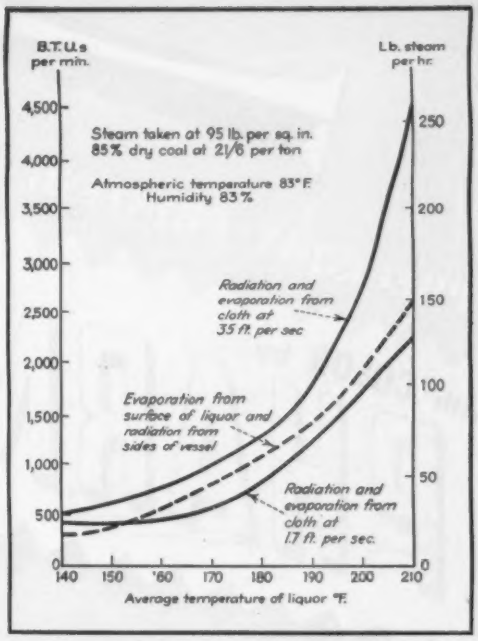


STEAM-CONSUMPTION CURVE *for heating cold water in an open vat shows an excessive demand for the first 20 or 25 min., and then a tapering off as the boil is reached.*



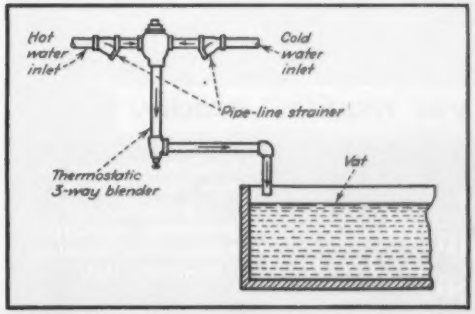
HEAT LOSSES *resulting from 56-in. cloth running at 35 ft. per sec. were less than double the loss at half speed. Hoods minimize such losses.*

steam consumption for holding the boiling temperature. The immersion of a textile material produces an increased demand for steam at the beginning of the actual dyeing operation. The obvious means for reducing steam consumption is not to start from cold, but to fill the bath with tempered water, controlled by a thermostatic blender.

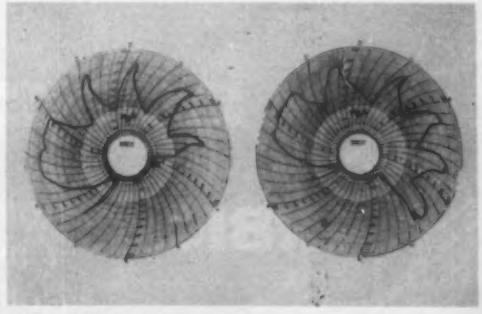
There are other ways of wasting steam. Practical tests have proved that even the most efficient dye-vat operator is unable to carry out instructions accurately regarding rise of bath temperature when using hand control. The dyer might do this job well for a short or longer period of time, but not continuously day-in and day-out. What happens in practice has been substantiated by chart records.

Tests were made by using a pneumatically operated temperature regulator with an "elapsed-time" device. Various automatically controlled batches were compared with hand-controlled batches. Instructions were to raise the boil in 1½ hr. to maintain it for 1½ hr., and then to remove the first pattern. Other patterns were to be removed after 20 min. of boiling.

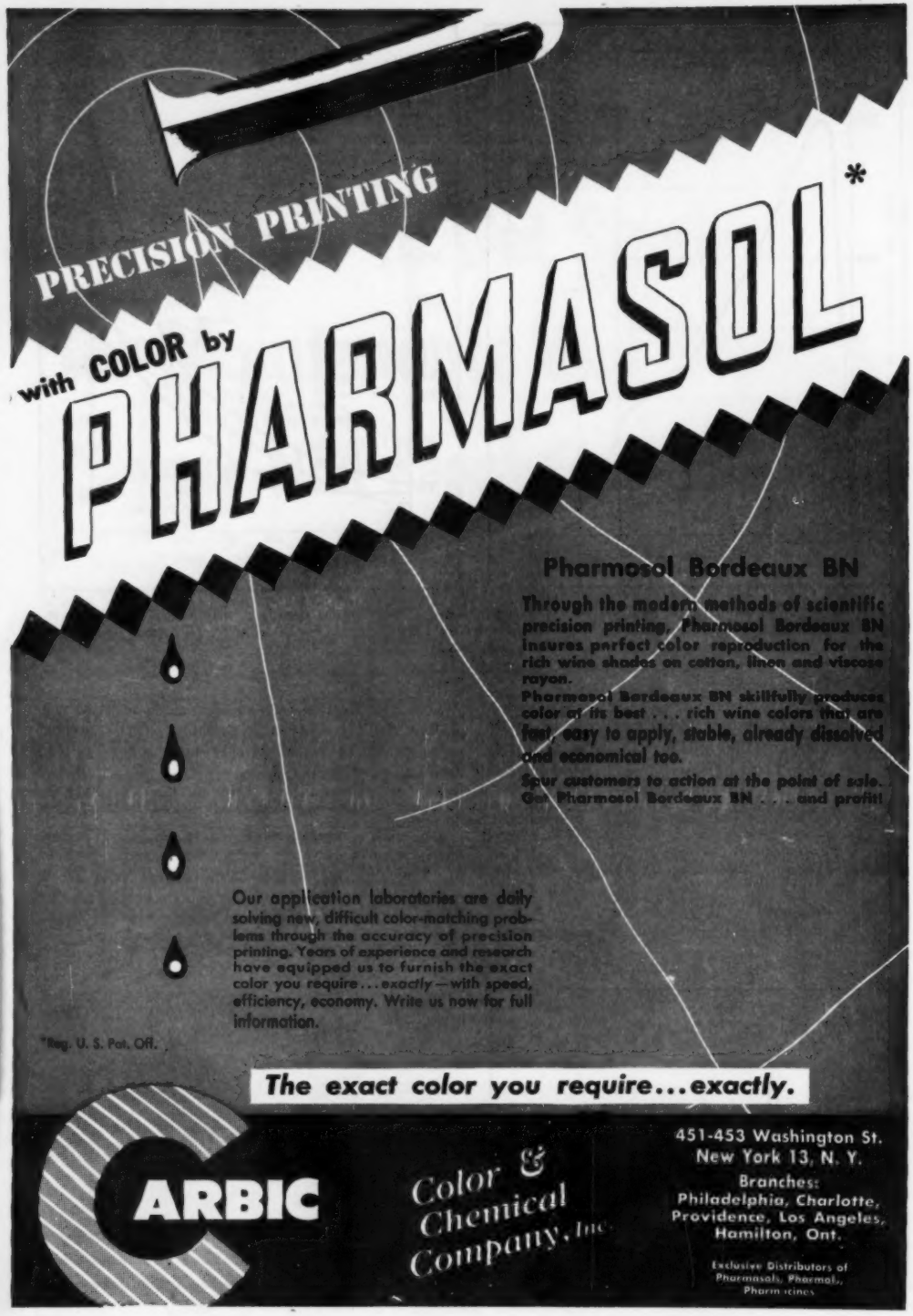
The chart records revealed that the operator by using hand control reached the boil in times varying from 30 to 45 min. He maintained at boil from 1¼ to 1½ hr., in spite of definite instructions, and in spite of the fact that the dyer knew that these were comparative trial runs. Other batches were not boiled for more than 15 min., and



REDUCED STEAM CONSUMPTION *can be obtained through the above thermostatic blender that fills the bath with tempered water.*



HAND CONTROL *of rise and maintenance of bath temperature is very irregular, as these actual test charts clearly show.*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sometimes for 10 min. only. The record charts also revealed that in some instances the dyer hardly reached maximum temperature before he took his next pattern and allowed the dye liquor to cool.

The conclusion to these tests was that automatic steam control justifies a considerable capital outlay, partly for improving quality and uniformity of dyeing, and partly for cutting down steam consumption. In this particular dye plant, with an average of 18 vats in operation working 48 hr. weekly, steam consumption can be estimated at about 400,000 lb. Assumed a 10% reduction in steam and a halving of rejects through improved methods, the introduction of automatic controls is a sound proposition.

INSULATION. Savings in steam used in heating up a dyeing machine can also be achieved through effective insulation of the walls and bottom of the vat. In one test run, a vessel was fitted with a variable-speed gear so as to produce alternate winch speeds of 40 and 20 rpm. The respective cloth speeds were 3.5 and 1.7 ft. per sec. The dyebath was made as leakproof as possible, and had a surface area of 54x54 in. A steam flow meter was fitted in the steam-supply pipe.

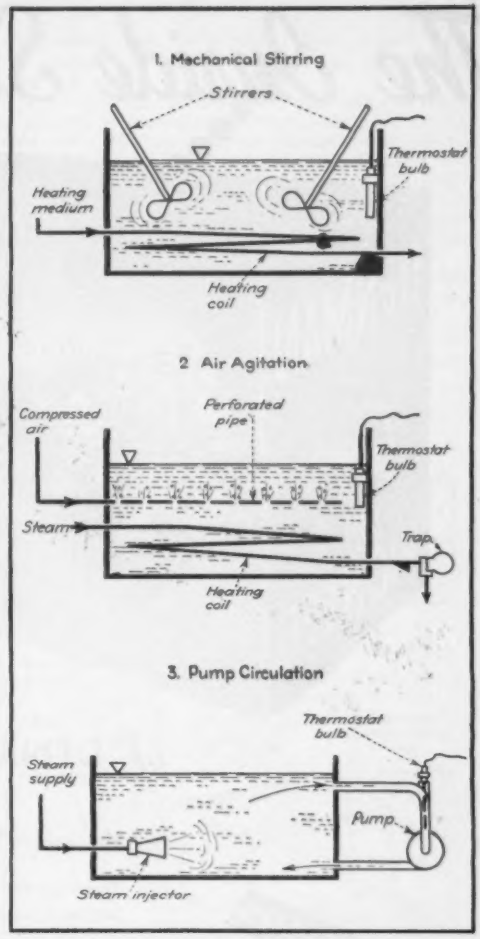
Cooling tests revealed heat losses through walls and from the liquor surface. The amount of steam wasted by passing uncondensed through the liquor was determined by ascertaining the difference between the actual steam measurement and the calculated steam quantity needed for the actual temperatur rise of the bath.

Heat losses from cloth running through at high speed were much less than double the loss at half speed, apparently because not enough time was available to the exposed fabric for cooling at the higher speed.

A well-known means for cutting down heat losses from the liquor surface is hoods, which are still much too seldom used on older machines. Some savings of heat can also be achieved by reducing the height of the winch above liquor surface, thus exposing less cloth to the cooling effect of the air. As mentioned previously, agitation of the dye liquor by steam bubbling violently through the bath also produces an enormous amount of steam waste.

Such use of excess steam is absolute nonsense, because the same object can be achieved better and more economically either by pump circulation, or by the use of compressed air, or by motor-driven mechanical stirrers.

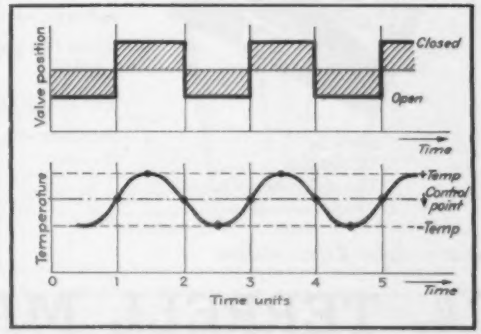
All these devices reduce steam consumption, and also add to controllability of dyeing by improving over-all heat distribution. Low-temperature dyeing, in short, has done much to revise the often heard opinion of dyers that only violent boil by means of steam agitation produces the right shades.



***STEAM USE AND LOSSES** can be cut and dyeing can be improved by using mechanical stirring (1), or compressed air agitation (2), or pump circulation (3) along with the steam unit.*

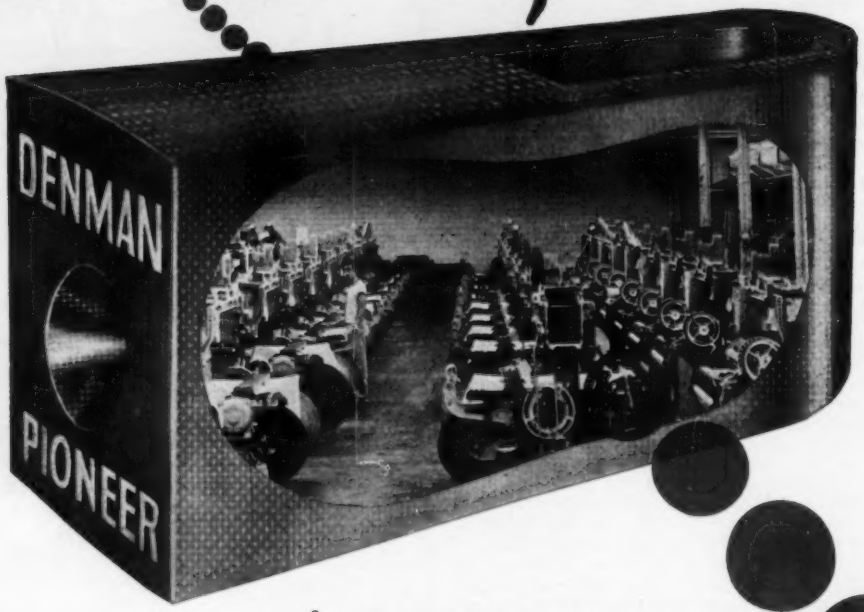
THERMOSTATIC CONTROLS. Plant equipment must first be brought up to top efficiency before thermostatic controls are applied. Although automatic dye-vat regulators can improve results to a certain extent, they cannot revise existing bad working conditions. The purpose of thermostatic dye-vat control is the automatic maintenance of already existing good working conditions, not the production of them single-handed. Existing older dyeing equipment, such as jiggers and vats, generally present more elaborate control problems than modern dyeing machines. Dyehouses still equipped with the older types of dyeing apparatus should investigate their thermal efficiency before proceeding to the fitting of automatic controls.

Generally speaking, a good figure for indicating thermal efficiency of a heat-flow process is "steam consumption per unit weight of processed goods." This figure should always be known to the dyehouse engineer. It varies widely with the method of dyeing, with equipment used, with the nature of material processed, and with other external



***ON-OFF STEAM CONTROL** is "stepped" (top) rather than gradual. Resulting bath temperatures are therefore wavy (below).*

The Inside Story



of DENMAN PICKER LEADERSHIP

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Their experience plus the close cooperation of Terrell field men and Denman laboratory research have combined to develop the outstanding characteristics of *resiliency, uniformity,* and *"wearability"* which make Denman the World's largest selling picker.

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process factors like supply steam pressure, steady or fluctuating.

An even better efficiency indication is, however, "Btu's per unit weight of dyed material." This index excludes steam pressure, and indicates just the amount of heat input, expressed in heat units.

AUTOMATIC CONTROL. Thermostatic control of steam admission can be automatically achieved by several methods.

(a) "Open and shut" control, sometimes called "Two-Step," or "On-Off" control, is less practical for close dye-vat control. It consists of shutting off steam once the desired bath temperature has been reached, and admitting it again when the temperature has dropped a certain allowable amount. On-off control is based entirely on time, and by varying the "open" time intervals of the steam-control valve, the liquor temperature can be held approximately as desired.

(b) Gradual, or metering or throttling steam control, uses a gentle variation of the rate of steam supply to the bath by altering the position of the control-valve disk. Thus the rate of inflow of steam to the vat is regulated precisely. When heating up from cold, the steam supply valve is fully open, but the nearer the bath temperature rises to the boiling point, or to the desired low-dye temperature, the more the valve throttles down, actuated from control impulses sent out from a thermostat immersed in the dye liquor. Even higher modes of throttling control have sometimes to be applied, such as the "Reset" or "Reset-Rate" method of control, according to actual working conditions.

(c) The "elapsed-time" method works well with some dyeing processes where gradual control is used, but the process is automatically finished after a predetermined time for holding has elapsed.

(d) "Program" or "Time-Cycle" Control is another modern method, usually applying pneumatically operated recorder-controls to the dyeing operation. Bath temperature is raised at a desired rate, which can be varied at will for each batch. Then a holding period follows for a predetermined time, gradually lowered if desired, and finally the process is automatically brought to an end. All operations can be set out in a time-temperature schedule, which schedule is strictly reproduced and repeated automatically.

(e) A control method which deserves much wider use, where working conditions are very favorable, is the semi-automatic control of dye vats.

A self-actuated simple temperature regulator of the liquid-filled type produces gradual (proportional) control. The control valve is installed in a small bore by-pass. After the dyer has brought the vat up to boil, he closes the main steam supply by hand; and the thermostat and automatic valve take over.

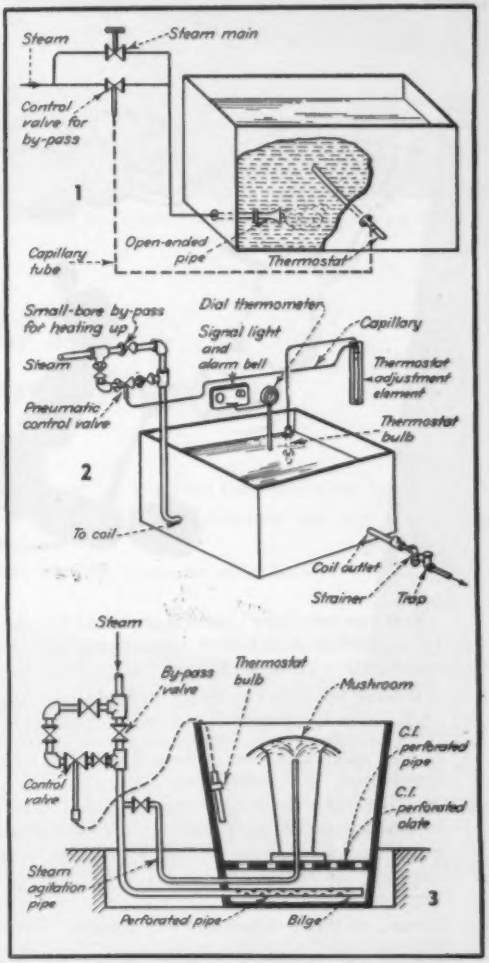
An alternate semi-automatic method includes a pneumatic control valve in the main steam supply. This control valve automatically closes after the desired bath temperature has been reached, and a small bore by-pass is then left to hand control during the boil. Another semi-automatic steam-control system works on a vat with a perforated steam pipe and "mushroom" circulation, using a self-actuated temperature regulator with a thermostat bulb immersed in the liquor-circulation pipe.

It depends on local working conditions which type of semi-automatic steam control is most applicable.

HIGH-TEMPERATURE HOT WATER. The use of high-temperature hot water in heating coils placed in dye vessels is becoming more and more popular. It is claimed by specialists that thermostatic control is easier with this method, and that higher fuel savings are achievable than with steam.

It is notable that thermostatic control with this system is achieved by mixing cooler return water with the hot flow water. The use of closed hot-water coils prevents dilution of the dye liquor, and eliminates impurities from the steam that might contaminate the bath. A simple closed circuit for the flow and return water is used. Through higher hot water pressures, and relatively great temperature drops in the high-temperature hot-water heating coils, very small pipe diameters can be used.

The extreme simplicity of the whole piping system makes the use of this control system in dyehouses very much to be recommended.



***SEMI-AUTOMATIC CONTROL** is obtainable (1) through auxiliary hand control of steam supply while raising to boil, (2) by hand control of the by-pass steam valve after the main pneumatic control valve has raised the temperature to a boil, or (3) by an auxiliary steam control with a perforated pipe and "mushroom" circulation in the vat.*

scoop for blitzing bacteria – DOWICIDES!

Bacteria Extracted from Soluble Oils

Now you can "blitz" bacteria and mold out of your glue, rid yourself of added labor costs, wasted material and the nuisance they cause in the textile industry.

For many years leading textile manufacturers have incorporated Dowicides in starch and other sizing materials to get rid of bacteria already growing and to ward off future attacks of these micro-organisms. Time and money formerly spent on replacement batches are saved.

And like these manufacturers, you'll find Dowicides offer mold and bacteria protection in other processes, too. Warp yarns and gray goods treated with them become mold-resistant; discoloration from dye forming organisms is no longer a threat.

Investigate this accepted means of bringing microbial control into your plant. Dow maintains complete laboratory facilities to help you solve your problems. Contact our nearest sales office or write direct to Midland for additional information.

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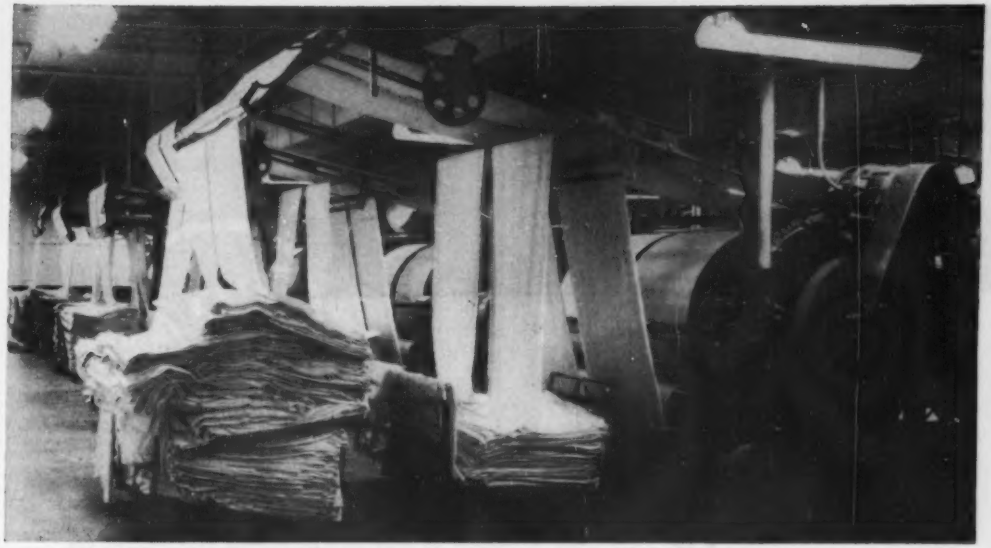
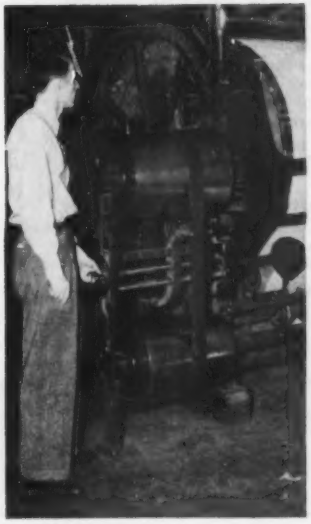


NINE NAPPING MACHINES (four 86-in. and five 90-in.) are used at Pacific Mills. Five filters and a shearer are not shown.

NAPPING QUALITY
Depends on Cloth and Machine



ADJUSTING THE "BITE" of the napper to produce the desired nap without damaging cloth strength is done here by Ben F. Willis, overseer of napping.

- *Cloth of the proper construction is the first requirement for good napping*
- *Sharp wire and proper roll speeds determine type and quality of nap*

By E. DALTON WHITE, *McGraw-Hill Atlanta Bureau*

THE WIDE VARIETY of uses for high-quality napped fabrics has brought about considerable research and experimentation in napping equipment and operations during the last few years. Not only has greater consideration been given to fabric construction and processing, but attention has also been focused on machine adjustment and maintenance.

In the production of a wide variety of napped fabrics, Pacific Mills, Lyman, S. C., has developed methods of control to reduce to a minimum the number of runs necessary to manufacture high-quality napped goods.

Production is in shoe flannels, printed flannels, automobile head lining, sport shirting, and flannelette. These fabrics are produced in a variety of weights ranging from 0.75 yd. per lb. to 4½ yd. per lb. The bulk of the mill's production is in the range from 2½ to 4 yd. per lb.

Installed in the napping department are four 86-in. nappers, five 90-in. nappers, five felters, and one shearer, together with grinders and shop equipment for maintenance of machinery.

Ben F. Willis, overseer of the napping department at Pacific, believes that there are four main considerations necessary to obtain the desired nap with the least number of runs. He lists these as:

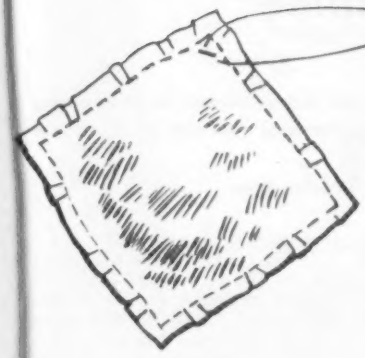
1. Construction of the cloth.
2. Preparation of the cloth.
3. Condition of the napping machine.
4. Proper adjustments of the machine.

CLOTH CONSTRUCTION. He thinks that best results are obtained when cloth is constructed to meet the

(Continued on page 278)

tea bags ... wool

A STORY OF PRODUCT IMPROVEMENT



Tea is probably one of the oldest commodities in use . . . yet it is within memory that some genius thought of putting it into individual bags and (profitably) revolutionized his industry.

The stimulation of sales through product improvement has been the theme song of many of the subjects at meetings on woolens and worsteds. A basic product improvement of vastly greater importance and significance than the very effective idea of packaging tea in single portions, is available to the woolen and worsted mills. That improvement has already proved itself in the markets of Continental Europe, England, Canada and in 1950 in the United States.

Durable mothproofing—Mitin® Mothproofing—has definitely asserted itself as a real product improvement. Mitin protects most woolens and worsteds for their normal life . . . and with no undesirable side effects, no change in color or character of the wool. Mitin is a "dyed-in-the-wool" mothproofer, easily applied during the dyeing operation or in the back washer so that tops, yarns, and vari-colored piece goods can be adequately protected. Precious fibers, always a source of concern, can be adequately protected with Mitin against moth damage.

The consumer is anxious to buy a mothproofed wool product —Mitin mothproofed. The consumer is definitely ready to pay more for a Mitin mothproofed wool product. The consumer has been covered by an insured guarantee for five years against moth damage. The consumer has responded enthusiastically as registered by the quick returns of guarantee registration stubs from hang-tags.

Mitin mothproofing has definitely proved itself a product improvement on woolen, worsted and precious fibers.

Mitin mothproofing is the "tea bag" of wool industries.

Call Geigy for a full explanation of details on Mitin mothproofing and the five year guarantee against moth damage. U. S. Pat. No. 2,311,062.

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Comparison of Properties of Vinylon With Various Fibers

Properties \ Kind	Natural fiber			Regenerated cellulose fiber			Polyamid synthetic fiber		Polyvinyl synthetic fiber			
	Silk	Wool	Cotton	Viscose rayon	Cupra rayon	Acetate rayon	Nylon	Amilan	PeCe	Vinyon	Orlon	Vinylon
Specific gravity	1.36	1.32	1.55	1.5	1.5	1.3	1.15	1.14	1.43	1.22–1.28	1.18	1.30
Dry tenacity, g. per den.	3.0–6.0	1.7	2.5–4.0	1.6–4.0	2.0–2.5	1.1–1.5	4.5–7.5	4.5–7.5	1.8	3.7–4.5	4.0–4.8	2.0–6.0
Dry elongation, %	16–25	54	7–10	8–30	15–30	20–27	14–25	14–25	20	8–28	16–21	15–30
Young's modulus, kg/mm²	950	260	800	800–1,000	800–1,000	800	120–400	260	350	300	—	238–1,150
Elasticity	good	very good	not good	not good	not good	good	very good	very good	very good	very good	very good	good
Bending strength.	rather strong	very strong	strong	weak	weak	rather strong	very strong	very strong	—	—	—	strong
Abrasion strength.	rather strong	weak	weak	weak	weak	weak	strong	strong	—	—	—	very strong
Heat resistance, relative strength at 100 °C, %	75	76	55	93	—	88	87	—	10	10	73	70
Softening point in air, °C	—	—	—	—	—	180	235	210	100	80	250	200
Strength at low temp., relative strength at -50°C, %	115	100	110	135	—	150	134	—	—	126	140	140
Moisture regain (20 °C 65%) %	11	16	8	12	12	7	3–4	3–4	0.1	0.1	0.9	4.5–5.5
Water absorption in water (20°C) %	43	33	40	86	86	40	8	—	0.2	0.2	2.5	30
Wet/dry tenacity, %	80	63	102	45–70	50–70	80	85–93	85–93	100	100	100	65–85
Shrinkage in water 100 °C, %				3–5		2–3					1.5	2.5
Dyeing property	good	good	good	good	good	good	rather good	rather good	not good	not good	not good	good
Acid resistance	rather strong	rather strong	weak	weak	weak	rather strong	rather strong	rather strong	very strong	very strong	very strong	trong
Alkali resistance	weak	weak	rather strong	rather weak	rather weak	rather strong	strong	strong	very strong	very strong	very strong	very strong

***TABLE OF COMPARISON** of Vinylon with other fibers was prepared by Dr. T. Tomonari, director and chief engineer, Kurashiki Rayon Co. Ltd. It shows what may be expected of yarns and fabrics made from Vinylon and blends of Vinylon with other fibers.*

VINYLON From Japan— A New Synthetic Fiber

Vinylon, a polyvinyl alcohol, is a versatile fiber. Among its characteristics are

- ***High strength and low specific gravity***
- ***High abrasion resistance and moisture regain***
- ***Strong resistance to acids and alkalis***
- ***Strong resistance to fungus and mildew***

VINYLON IS A polyvinyl alcohol fiber developed by the Synthetic Fiber Manufacturers Group of the Japan Synthetic Textile Assn. This Group is made up of Kurashiki Rayon Co., Kanefafuchi Spinning Co., Goseichigo Co., and Mitsubishi Industries Co. Kurashiki Rayon Co. has started production of Vinylon on a commercial scale, but has not reached full production yet.

Wide Range of Uses

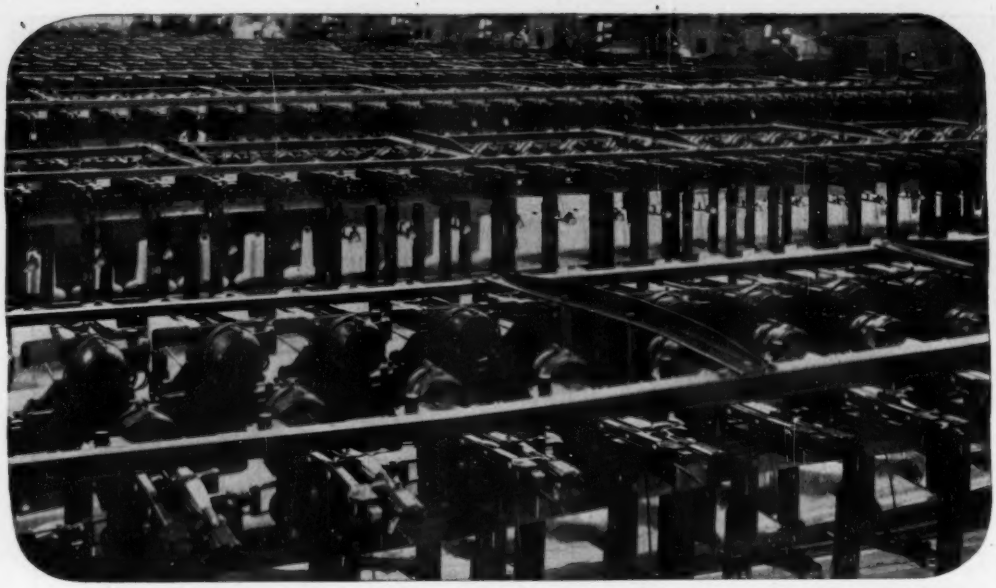
Vinylon is being proposed as a suitable fiber for the manufacture of clothing items including suiting, lining fabric, underwear, stockings, socks, gloves, and hats; for knitting yarns and sewing threads; for bathing suits, rainwear, and work clothes; for umbrellas, sheets, table cloths, carpets, and brushes; for industrial uses such as filter cloths, electrolytic diaphrams, packing, and paper-making felt; for fish nets, twine, and rope; for tentage, cable, and surgical sewing thread.

Various treatments can give Vinylon the appearance of silk, cotton, hemp, or wool.

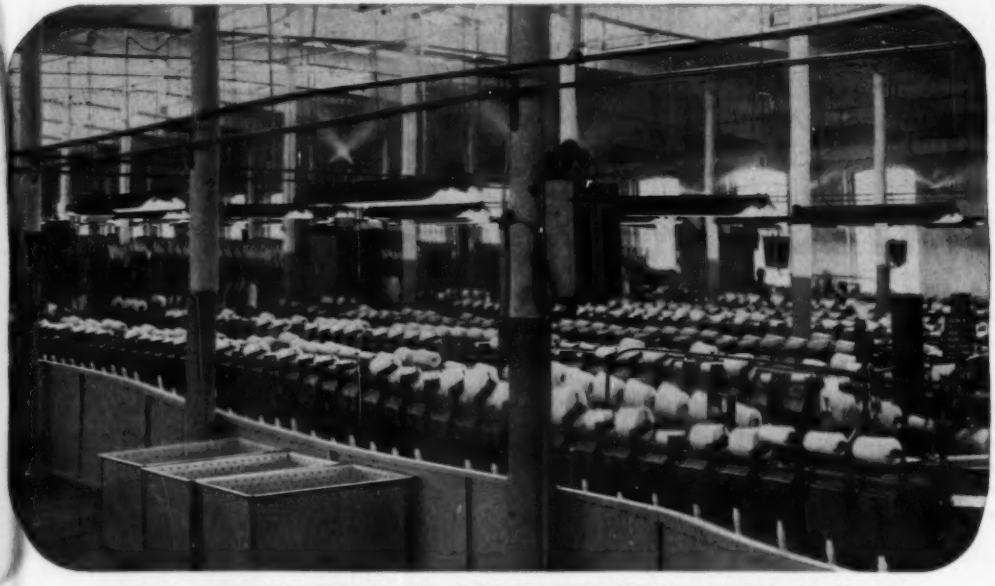
What It Is and How It Is Made

Vinylon is a synthetic fiber of the polyvinyl alcohol series. It is produced in the form of monofilament yarn, continuous multifilament yarn, multifilament tow, and staple fiber. Special staple is produced for blend-

(*Continued on page* 232)



ABBOTT AUTOMATIC QUILLERS PRODUCE MAXIMUM PRODUCTION PER OPERATOR AT LOWEST COST. 1000 TO 2000 BOBBINS OF WOUND FILLING PER HOR PER OPERATOR.

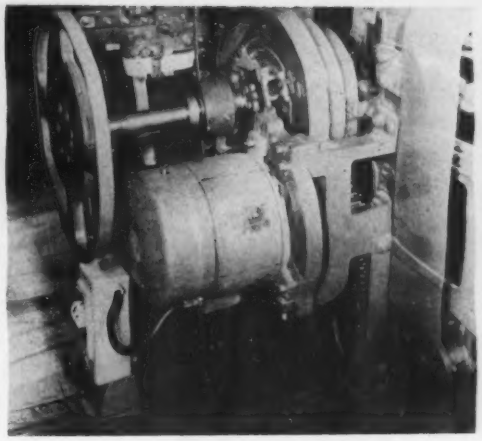


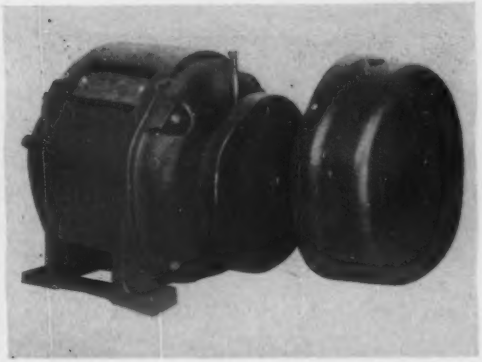
ABBOTT AUTOMATIC WINDERS REQUIRE ONLY ONE OPERATOR PER MACHINE. 800 TO 1000 BOBBINS WOUND ONTO CONES OR CHEESES PER HOUR PER WINDER.

ABBOTT MACHINE CO., INC.

WILTON, NEW HAMPSHIRE

SOUTHERN OFFICE: GREENVILLE, S. C.





THE FLYWHEEL on the end of the motor shaft (normally enclosed by the cover) will help the loom meet peak power demands required in picking the shuttle.

The Case for Flywheel LOOM MOTORS

Adding a flywheel to a loom motor, according to the author, will:

- *Permit higher speeds through a stiff drive*
- *Reduce power cost by eliminating power peaks*
- *Permit a 1,200-rpm. motor to be used, thus improving speed flexibility*
- *Eliminate start-up marks*
- *Minimize voltage-variation problems*

By R. J. DEMARTINI, *Textile Application Engineer, General Electric Co.*

To achieve higher speeds and efficiencies at lower power cost, to get more work out of a motor, to permit use of 1,200-rpm. motors in place of 1,800-rpm. with equivalent weaving performance, and to improve quality —these are the reasons why mill men are calling for flywheels on loom motors.

Shuttle Control Key to Higher Speed

A drive that can maintain steady speed under the pulsating loom load assures good picking, and since good shuttle control is the key to higher loom speed, a stiff drive is desirable. Severe speed changes at the time of picking cause shuttle flights to be erratic. When its drive permits a loom to lope, the shuttle is not consistently struck solidly and is therefore often late in arriving at the opposite side of the loom. As a result, the loom bangs off excessively, and weaving efficiency is reduced.

Shortly after the lay has been accelerated toward back center, the pick occurs. This timing means that just when the motor has been slowed down in serving the demands of the accelerating lay, the picking mechanism calls for a great quantity of energy to be delivered in an extremely short time. The motor, already laboring and with speed depressed, must suddenly dish up the equivalent of 13- to 15-hp.-torque on single-shuttle looms and some 20-hp. torque on multiple-shuttle looms. It is unreasonable to expect that a 1- or 1½-hp. motor will be capable of drawing the required energy from the power line; it must draw on energy stored mechanically, as in a flywheel.

Power Bill Reduced

In mills where power cost is high or where the power-distribution system is heavily loaded, the fact that a flywheel added to the loom drive reduces power consumption is of real significance. By providing the energy demanded in sudden pulses by the lay and the shuttle, the flywheel relieves the power system of serving both instantaneous demands. Elimination of power peaks reduces heating internal to the motor and reduces the total amount of power consumed.

Consider the case of a mill running two shifts, six days a week, and paying 1.3¢ per kilowatt hour for power. By adding a flywheel, the average saving in power may be expected to run in the order of 60 w., based on experiences in a typical installation. A straightforward calculation, therefore, reveals that the cost of a flywheel is amortized in approximately four years on the basis of power saving alone.

Increase in Motor Capacity

Because the flywheel operates to help the motor over load peaks, in some applications it permits a smaller motor to be substituted. Since the rating of an electric motor is dependent on its ability to radiate heat (losses) generated within it, reduc-

(Continued on page 246)

In producing hosiery that wins approval of your expert eye and proves a shopper stopper in retail stores, Monsanto Santomerse No. 1 is a valuable assistant. Santomerse No. 1, the all-purpose detergent and wetting agent, aids in level dyeing, prevents spotting by metallic curds, helps keep bright colors brilliant. It is used in scouring and penetrating of nylons, acetates, cottons and silks, even when different fibers are knit together.

Santomerse No. 1 is an alkyl aryl sulfonate, with a minimum of 40% active ingredient. Santomerse No. 1 is a rapid wetter and penetrant and a highly efficient detergent.

Santomerse No. 1 rinses out quickly and thoroughly. It is efficient in hard or soft water, in hot or cold solutions, in acid or alkaline baths.

For information on the use of Santomerse No. 1 in hosiery mills . . . or in any textile business . . . contact the nearest Monsanto Sales Office or write MONSANTO CHEMICAL COMPANY, Phosphate Division, 1700 So. Second St., St. Louis 4, Mo.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto (Canada) Ltd., Montreal.

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FREE TICKETS to the Materials-Handling Exposition and Conference can be obtained by writing Editor, TEXTILE WORLD.

Mill Men Can Benefit From MATERIALS-HANDLING Show

A survey of textile-mill men who attended the last Materials-Handling Show in 1949 indicates that:

- ***Most who attended were engineers***
- ***98.4% found equipment useful to their company***
- ***92% found some new equipment they didn't know about***
- ***82.1% found equipment they planned to buy***
- ***98.4% felt the show was valuable***

IF YOU'RE TRYING to decide whether or not to attend the 3rd Materials-Handling Exposition and Conference in Chicago, April 30 through May 4, 1951, you may be interested in how textile-mill men who attended the last show felt about it.

Right after the 1949 show, Researcher Elmo Roper surveyed everyone who attended from industry. He wanted to find out how they liked the show and if they got anything out of it. Replies were then broken down by industry.

Here are the questions and answers given by textile-mill who went to the show:

Q. What is your job?

A. Engineer	52.0%
Superintendent	7.3%
Traffic & warehousing	4.1%
Foreman	4.1%
Production manager	6.5%
President or vice president	6.5%
Purchasing agent	7.3%
Owner	4.1%
Secretary or treasurer	4.1%
General manager	0.8%
All other	3.2%

Q. Why did you go to the materials-handling show?

A. To get an answer to a specific problem	35%
To see new developments in materials handling	93.5%
To attend one or more of the technical sessions	21.1%

(Percentages add up to over 100% because some mill men gave more than one answer.)

Q. Did you run across any equipment of possible value to your company?

A. Yes	98.4%
No	1.6%

Q. Was some of the equipment new to you, or did you know about all of it before?

A. Some of it was new	92%
I knew about all of it before	6.4%

Q. As a result of the show, did your company plan to buy a large amount of new equipment, a limited amount of new equipment, or none at all?

A. A large amount	4.1%
A limited amount	78.0%
None at all	9.7%

Q. Would you say that the materials-handling show was very valuable, of some value, or pretty much a waste of time for you and your company?

A. Very valuable	23.6%
Of some value	74.8%
Pretty much a waste of time	1.6%

Textile-mill men, incidentally, rep-

(*Continued on page 332*)

From Maine to the Carolinas!

For many, many years we have served some of America's leading mills in the area economic to our South Charleston, W. Va. and Carteret, N. J. plants.

Although practically every chemical for every use is in short supply at this time, a frank discussion of your needs and our production picture may develop opportunities to serve you now or into the future.

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CAUSTIC SODA
Liquid 50% Standard and Rayon Grades
Liquid 70-73% Std. Grade, Flake and Solid
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MONOSODIUM PHOSPHATE
SODIUM TRIPOLYPHOSPHATE
TETRASODIUM PYROPHOSPHATE
TETRASODIUM PYROPHOSPHATE CRYSTALS
TETRAPOTASSIUM PYROPHOSPHATE
MONOPOTASSIUM PHOSPHATE
DIPOTASSIUM PHOSPHATE
TRIPOTASSIUM PHOSPHATE

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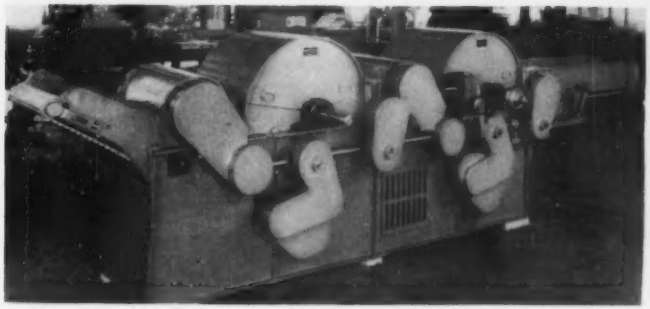
CARBON TETRACHLORIDE
FIRE EXTINGUISHER FLUID
HYDROGEN PEROXIDE
MAGNESIUM CHLORIDE
SODIUM SULFIDE

MACHINERY AND SUPPLIES

TEXTILE Equipment NEWS

Tandem-Unit Waste Machine Offered



TWO OPENING ACTIONS take place on each cylinder of this new tandem waste machine. Each cylinder has two sets of feed rolls, one at the front, the other at the bottom.

A new tandem-cylinder waste machine for processing hard unsized waste of cotton, rayon, or wool has been introduced by Kirkman & Dixon Machine Shop & Foundry, Greenwood, S. C. The new machine is in addition to the single-cylinder waste machine developed by the company last year.

The tandem application combines two, three, or more units into a single housing, with only one feed apron and one delivery apron. The two-unit tandem application has an over-all length, including a 5-ft. apron, of 16 ft. 3 in. The unit weighs approximately 5,000 lb. Height is 52 in., width, 30 in. at base, with a 60-in. cylinder shaft.

Mills sending hard-waste samples to the firm to be processed in the new tandem application are said to have been highly pleased with results, and the company is said to have orders for many machines already.

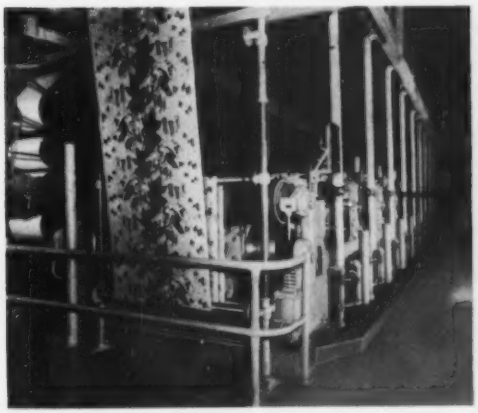
The two-unit tandem application is said to accomplish the same hard-waste processing in a single passage as an ordinary four-cylinder waste machine.

The machine is not designed to process sized waste.

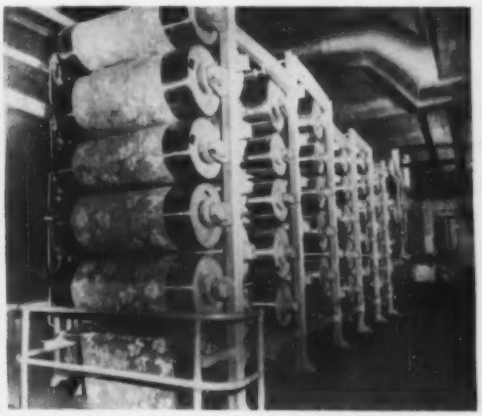
Compartment-Type Open Soaper Has New Design Features

A new compartment-type open soaper has been developed by James Hunter Machine Co., N. Adams, Mass.

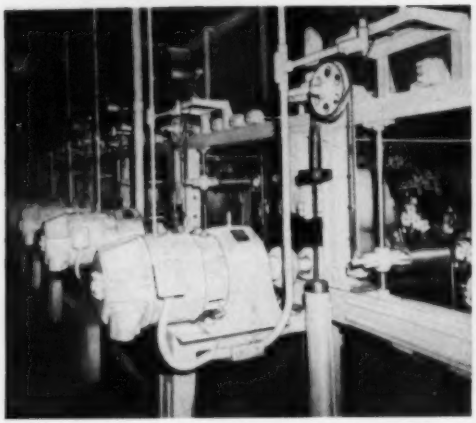
The machine, which has been operating on a production basis for the past 6 months at the U. S. Finishing Co., Norwich, Conn., was designed as the result of several conferences between the engineering department and the finishing department of the U. S. Finishing Co., and James



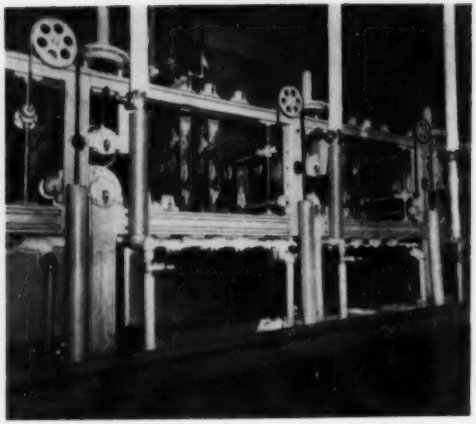
HEAVY-DUTY PNEUMATIC SQUEEZE ROLLS at delivery end of new soaper are 18 in. in diameter, operate under 10 to 15 tons pressure.



40 DRY CANS follow the final squeeze. Cans are 23 in. in diameter, operate under 35 to 50 lb. pressure.



INDIVIDUAL MOTOR DRIVES and compensating rolls are rigidly supported on the cast-iron frame independent of the stainless-steel bowls.



STAINLESS-STEEL TANKS are easily accessible. Cast-iron frame supports top and bottom idler rolls.

Hunter engineers. The end result of these conferences was the installation of a compartment washer embodying practically every feature and improvement which practical operating personnel had desired for many years.

The cloth is fed to the machine through a set of Mecco guides and draw rolls to the first bowl. It progresses through vertical passes over stainless-steel top and bottom idler rolls, then over a curved rubber expander to the main nip rolls. These rolls can be furnished with either 3- or 5-ton pressure. The bottom roll is of centrifugally cast stainless steel, and the top roll is rubber-covered to any density required by the mill. These main squeeze rolls, as well as the idler rolls, are rigidly supported in a cast-iron frame which is entirely independent of the stainless-steel bowl itself.

Both top and bottom bearings of the squeeze rolls are so designed that either roll may be removed without removing the other. The bottom idler rolls are held independently of the stainless-steel bowl, and no parts which must be aligned are attached to the tub itself.

Tanks are fabricated from type-#316 SMO stainless steel, and all corners and bottoms are rounded for ease in cleaning. A skimmer trough is furnished in each tank to clear away sludge or other foreign matter which is removed from the cloth. The bottom idler rolls in the first two compartments are solid stainless-steel tubes, and in the balance of the machine is made up of specially constructed reels. These reels are made from six ¾-in.-diameter stainless-steel rods and agitate the cloth. The agitation is said to loosen gums and increase the scouring efficiency.

Pressure on the main rolls is supplied through Stabiliflo motors, the control for which is located in the casting which supports the main roll bearings. The final squeeze is accomplished through a heavy set of Hunter model-G pneumatically controlled 18-in.-diameter squeeze rolls which operate under from 10 to 15 tons pressure. The cloth then goes through a compensating gate and is delivered to a set of 40 Unistel dry cans. These cans are 23-in. in diameter, and operate under 35 to 50 lb. pressure.

At the time that this soaper was installed, the mill management hoped to increase the productive efficiency of the soaping range by approximately 50%. Now, after six months of operation, a 100% increase is claimed as well as running speeds from 90 to 125 yd. per min. on a complete range of fabric.

When the machine is being run for soaping after aging or developing and oxidizing the colors used in the printing process, the first two bowls are filled with a chrome-acidic oxidizing bath to perform the initial function of developing. After these two bowls come two water rinses, then four soap bowls and two final rinse bowls. The temperature of the water is approximately 180° F. in all bowls. Water flow as well as addition of acid and soap can be entirely automatic. When the machine is being used for scouring rather than soaping, seven to eight bowls are used for soap and soda, and two to three bowls for rinse bowls.

McBride Plan Eases Creel-Purchase Cost for Overseas Buyers

Edward J. McBride Co., Philadelphia, Pa., manufacturers of warp-preparatory equipment and other textile machinery, has recently announced a new plan which will make McBride magazine creels available to overseas buyers at prices far below those previously existing.

Since the heaviest part of a creel, the framework, is the simplest to build, McBride engineers have prepared comprehensive plans to permit the framework of the McBride SRM magazine creels to be fabricated locally. This framework has been designed to utilize standard angles, channels, I-beams and pipes, so that its fabrication can be easily performed by a mill or local machine shop anywhere in the world.

The highly machined and patented parts, such as the swinging arms, spindles, guides, stop-motion, and the tension unit, are manufactured by the McBride company and shipped to the purchasing mill with full instructions for assembly. Since these parts are light, they are easily shipped. Freight costs are kept to a minimum, as are import duties on these products.

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Above all else, uniformity is perhaps the most distinguishing feature of all SONOCO Products.

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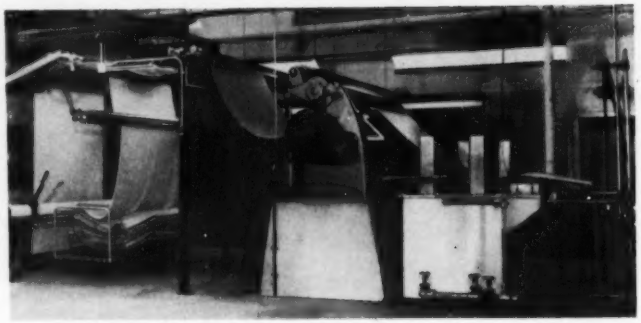
London Shrinker Runs at From 15 to 50 Yd. Per Min.

A new London-type shrinking unit, called the Unishrink continuous-shrinking range, has been developed by James Hunter Machine Co., N. Adams, Mass.

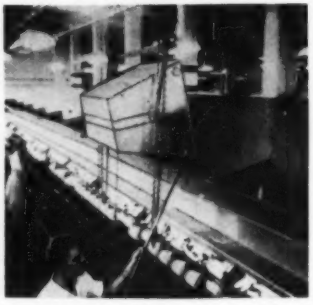
This new range has a unique horizontal conveyor which carries the cloth in a completely tensionless position. A patented airflow feature is said to insure even drying, and 4% to 10% shrinkage can be obtained in the warp with minimum width shrinkage at continuous speeds from 15 to 50 yd. per min., depending upon the weight of the fabric. The range can be operated by one man. Steam consumption for average production of 40 yd. per min. on 14- to 15-oz. worsteds is less than half what it was on the previous dryer which was operated at less than 20 yd. per min.



STEAM CONSUMPTION of this new shrinker is said to be less than half the amount required by previous units.

New features on this continuous-shrinking range include Mecco guides for automatically guiding the cloth to the wetting-out tank. The new steam box gives improved penetration. A double-compartment tank is supplied so that two types of finishes, either cold-water or resin, can be run at the same time without completely exhausting the bath. Bottom idler rolls may be raised for ease in threading, and also to lift the cloth out of the chemical if the dryer is stopped. A special Hunter Leyland-Mycock expander removes all wrinkles and double edges before the cloth enters the squeeze rolls. A new-style rotary flock brush clears the top roll of flock. A special compensating gate, with hydraulic Reeves drive, controls the cloth tension between wetting-out tank, squeeze rolls, and dryer. The dryer is furnished either with a folder, complete with static eliminator or a roll-up device as shown in the illustration above.

Winder Attachment Transports and Stores Bobbins



POSITIONING AND TRANSPORTATION of bobbins, providing a natural first-in, first-out supply of bobbins, are advantages offered by this new spooler and winder attachment.

An attachment for spooling and winding machines developed by P. O. M. Co., Industrial Consultants, and Werner Textile Consultants, 60 E. 42nd St., New York, N. Y., has been granted U. S. patent No. 2,536,510. This device can be attached to most of the standard Foster or Universal winders which are creeled with spinning bobbins.

Prior to the development of this attachment, bobbins were brought to the winder in a truck. The tender had to position the bobbins by hand from the truck onto the shelf of the machine or into a hopper which is below the supply spindles. Bobbins were exposed to trash, loose ends, etc. The method also involved repeated bending of the operator.

With the new device, bobbins are brought from the spinning room or from the conditioning machine in a bucket which runs on an overhead rail. The entire bucket can be emptied effortlessly into the hopper with one movement of the arm by tilting the bucket.

The large overhead hopper provides for the storage of a large number of bobbins which can be emptied into the hopper. Sufficient storage for a full shift or even a full day is made available, depending on the yarn count. Thus, yarn has to be delivered only once instead of several times per shift or per day.

Previously, the spooler tender always took the bobbin highest on the board. The lowest lying bobbins were not used for long periods of time. These infrequently used bobbins became dirty or dry. The new device provides a natural first-in, first-out supply of bobbins to the winder.

With the new device, the tender will always reach for a new bobbin from the same comfortable level, that is, the lower part of the hopper. Before, he had to reach on levels of various height, according to the amount of bobbins stored, or he had to bend down.

The spools or cones, when finished, are placed upon an endless-belt conveyor and are transported to the cone hopper, container, or inspection table. Transporting can be done continuously or periodically as required, and the cones can be inspected and/or wrapped simultaneously.

Another conveyor system is provided to carry the empty bobbins back to the spinning room for repeated use.

The same variety of yarn colors and counts as heretofore can be operated on the improved machine.

The new device is said to facilitate and improve the normal positioning of bobbins on spoolers and winders and also the transportation of bobbins, thereby allowing the tender to handle more spindles than heretofore and reducing the work-load of the yarn carrier. Considerable savings are said to result.

Smooth performance

In smoothness and flexibility, each Textile Spring-Beard Needle is exactly right for the job a needle must do.

The smooth, mirror-like finish is carefully controlled to assure even stitches, improved knitting results. Flexibility is achieved by means of a special steel formula, proper tempering, and the careful balancing of needle resiliency and needle length.

Smoothness and flexibility are just two of the many advantages obtained through Textile's quality controls —automatic and electronic. You get this same balanced performance in every box of Textile Spring-Beard Needles.

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SPRING-BEARD NEEDLES

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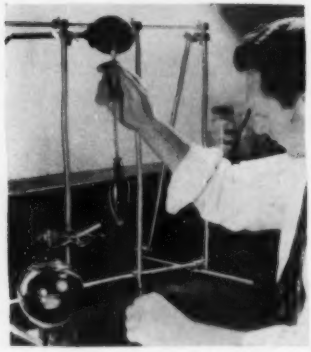
Two New Devices Facilitate Laboratory Work



INSERTING 4-IN. STIRRER PROPELLORS through narrow-necked flasks and similar vessels is a prob'em that is solved by use of a new umbrella stirrer. The stirrer has four blades that can be closed to pass through the neck of a flask, then opened for maximum stirring effectiveness.

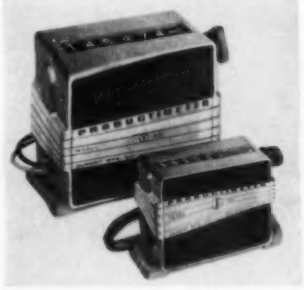
The umbrella stirrer is said to speed up dissolving action, preparation of slurries, mixing of emulsions, etc., and is particularly valuable for use with a 3-neck flask when a minimum of exposure to air is desirable. The 12-in. shaft of the stirrer fits into chucks of any motor device accommodating ¼-in. rods. All parts of the stirrer are made of corrosion-resistant stainless steel.

The blades of the new stirrer can be twisted while within the flask so that a wide variety of shearing actions is provided.

EASY POSITIONING of heavy and/or hot laboratory equipment at various levels above the workbench is afforded by use of the improved "Lab-Lift" device manufactured by the Fisher Scientific Co., 717 Forbes St., Pittsburgh, Pa. The device has a platform which can be adjusted to any point from 11½ to 18½ in. above the workbench merely by turning a screw-support to which the platform is attached. The improved laboratory aid is more stable and easier to operate than previous models or makeshift devices.

Heavy kettles, reaction flasks, cold and hot baths, and similar vessels are held safely on the Lab-Lift, or moved up or down so they can be attached or removed from reaction trains, etc. Both the movable platform and the base have upright cadmium-plated rods for holding clamps, thermometers, stirrers, etc.

Two New Electric Counters Operate at High Speed



ELECTRIC COUNTERS are available in two sizes. The smaller operates at a speed up to 1,000 counts per min., the larger up to 800.

Two new electric counters have been developed by Durant Mfg. Co., 1931 N. Buffum St., Milwaukee 1, Wis. Except for size, these companion models are identical in design and appearance.

The smaller model, identified as the "Y" Electric, is for light applications where reading is done at close range. It measures 1¾ in. wide, 2⅞ in. high, and 3¾ in. long. It will operate at speeds up to 1,000 counts per min. The second unit is the "CS" Electric for heavy industrial applications, and features larger figures for distant reading. The dimensions are 2¾ in. wide, 4⅞ in. high, and 5 in. long. The speed is up to 800 counts per min. Standard voltage for both is 110 v., 60 cycle, a.c.

A new type case provides compactness and rigidity. The design permits easy panel mounting or base mounting. The units are totally enclosed and are said to afford great protection against dust and moisture conditions.

"Y" and "CS" electric counters are built to give accurate count; hardened-steel working parts assure long life and dependability. Voltage fluctuations on normal industrial circuits have no effect on their accuracy. The two counters are available in six figures capacity and are resettable.

New Packing Inert To All Acids

A new chemically inert mechanical packing, Chesterton Blu-Lon, Style 320, has been developed by A. W. Chesterton Co., Everett, Mass.

Blue-Lon is a highly resistant chemical packing for such tough and demanding conditions as handling all acids, caustics, or alkalis, including sulphuric, sulphurous, chromic, and nitric acids.

The new packing is 100% pure Cape African blue asbestos entirely free of the usual cotton content. This blue asbestos is completely immunized by Teflon Suspensoid, and a combination results which gives acid-resisting properties heretofore unattainable. In the suspensoid process, each asbestos strand is completely coated with chemically inert Teflon under a special 700° F. heat-fusion process.

Swedish Centralograph Available in U. S.

The Ericsson Centralograph, a device which records operating time and down time of individual machines and gives the reasons for the down-time is now available in the U. S. through Ericsson Telephone Sales Corp., 100 Park Ave., New York 17, N. Y.

The Centralograph [TW, March, '51, p. 134] has an electrical contact attached to a main shaft on each machine under control. While the machine is operating, electrical impulses are transmitted to a central recorder. If the machine stops, the line on the chart indicating operation stops, but the chart continues to move.

Each machine also has a telephone-type dial mounted on it, and each number on the dial is assigned to a common stoppage cause. When the machine stops, the operator dials the number which corresponds to the stoppage cause, and this number is recorded on the tape in the central recorder.

Ball-Bearing Turntable For Cloth Trucks Available

A new ball-bearing turntable for cloth trucks, designed for use in range with scutchers or cloth openers, has been developed by Birch Bros., Inc., Somerville, Mass. With the ball-bearing turntable, the cloth truck can be easily turned to eliminate excessive twist. The turntable is of rugged construction and turns freely.

VAN VLAANDEREN C.T.® JIG

STAR PERFORMER

The Van Vlaanderen C.T. Jig in one short year has developed into the star performer of many dye houses. Here's why it's in the limelight.

- New compact and silent worm type main drive operating in oil.
- Multiple disk friction clutches (dry type) eliminate drag entirely.
- Multiple roller chain drives completely housed and running in oil reduce maintenance and assure clean operation.
- Entire drive system controlled by shifter lever operated from either end.
- *Heavy vibration free cast iron frames and separators.*
- Stainless steel tank with new overflow arranged sideways.
- Oscillating expander unit with stainless steel curved bars and immersion rolls mounted on special stainless steel roller bearings.
- Rubber covered jig rolls mounted on anti-friction bearings.
- *New malleable iron brakes with tension indicator permit quick and accurate control.*

VAN VLAANDEREN

You are invited to see this machine.

MACHINE COMPANY

370 Straight Street, Paterson 3, New Jersey

World's largest manufacturer of machines for processing woolen fabrics

Liquid-Level Detector Designed for Critical Applications

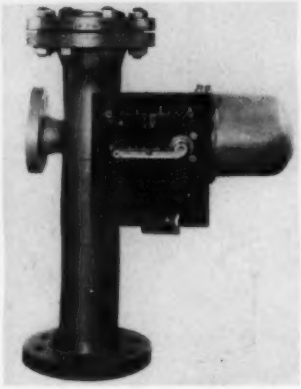
A new displacement-type detector and transmitter using a bellows seal, designed to provide more precise and sensitive control of liquid levels, has been developed by Minneapolis-Honeywell Regulator Co., Brown Industrial Div., 4494 Wayne Ave., Philadelphia, Pa.

The new development is said to be able to detect the smallest changes in liquid levels. When used with a standard receiving-controlling instrument and a diaphragm valve, the detector provides a smooth, friction-free system for extremely accurate control, the company states.

The bellows-seal construction and inherent sensitivity of the new detector is said to meet many liquid-level problems.

The system offers industry a more precise, sensitive method of liquid-level control than either a differential-type meter, such as a mercury manometer, or a torque-tube-type displacer can provide. It does not replace these methods of liquid-level control. Instead, it supplements them by serving for those applications which are considered beyond the capabilities of differential-type or torque-tube displacer-type transmitters.

In the Honeywell system, a non-indicating displacement-type detector and transmitter is employed with any pneumatic receiver of the indicating, recording, or controlling form. When used with a wide-band proportional receiver-controller and a diaphragm motor valve, the result is smooth, friction-free and accurate control of liquid level.



SMALL INCREMENTS in liquid-level changes can be detected by this new instrument which goes beyond the capabilities of, rather than replaces, existing devices.

Roll-Surface Temperature Unit Does Not Touch Roll

A new roll-surface-temperature unit developed by Leeds & Northrup Co., 4934 Stenton Ave., Philadelphia, Pa., measures temperature of a moving roll surface without touching the roll. Because of the unique design, the unit cannot scratch, score, or in any way destroy delicate surface films, the company states.

Temperature detected by the unit is recorded automatically by either a Micromax or Speedomax instrument supplied as an integral part of the complete equipment. The recorder can be equipped to operate either signals or controls.

Applicable to roll diameters down to 9 in. and to flat surfaces, the new detecting unit operates independent of surface speed, emission characteristics, and finish. It can be mounted at the center of the roll or at any other location, wherever actual temperature measurement is desired.

This new primary element works on the principle that a moving object carries with it a thin, closely adhering layer of air nearly the same temperature as the moving surface. Mounted $\frac{1}{16}$ in. from the surface is a measuring head, contoured to fit the roll. A continuous stream of air is sucked past the measuring element and thus heats it to virtually the same temperature as the roll surface.

Although recorded temperature is a few degrees lower than true surface temperature, the difference remains substantially constant and is therefore negligible in most process control (−4° F. or less). The unit provides temperature measurements well within limits of industrial requirements. Air-suction rate and surface speed are non-critical over wide limits. Measurements are not appreciably affected by ambiant temperature.

A compound joint with spacing slide makes it easy to position the measuring head concentric with the roll and at proper spacing. Should material adhere to the roll surface, a safety bumper retracts the measuring head. The unit can also be supplied with a safety switch which operates in conjunction with this retracting device. This safety actuates a bell, horn, or light to signal the operator and freeze the control until the measuring head is reset.

Hosiery-Repair Needles Available From California

Latch-eye needles for invisible mending are now being made by Culver Products Co., 3630 Eastham Drive, Culver City 1, Calif.

These precision instruments are made in ten sizes and styles for dropstitch work, hosiery and knitted-goods repair, French reweaving, inweaving, and patch weaving. The needle eyes are hinged for instantaneous threading, and the needles are welded and fitted into plastic handles. Instructions in the use of these needles for invisible mending are also supplied.

Belt With Teeth Assures Positive Drive

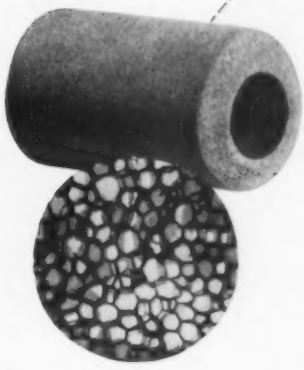
A new rubber and fabric belt with teeth, to be known as the Gilmer timing belt, is now being produced by U. S. Rubber Co., 1230 Avenue of the Americas, New York 20. The belt is said to fulfill the need for a power drive which will not slip and which will permit split-second precision timing. In addition, it will attain speeds up to 16,000 ft. per min., and operate more quietly than precision gears running in an oil bath. It can also be used as a functional part, such as a synchronized conveyor, as well as for transmitting power.

On commercial sewing machines, the belt is said to have made possible operating speeds which are 50% faster than those possible with other drive mechanisms, with net increases in production of as much as 25%. It can be manufactured in any desired size and in a variety of materials to suit specific applications.

The belt is now in production in the L. H. Gilmer plant at Philadelphia, Pa., and it will be marketed initially through the L. H. Gilmer Div.

Currently production is limited to specifically engineered applications. However, the company expects to offer a standardized line of stock drives in

If you're having trouble with eyebrows try this Armstrong Cot



Here's why cork cots won't eyebrow. Millions of tiny cork cells like these (here magnified 1200 times) give cork cots their superior friction. As the yarn passes under the cot, these cells act like tiny suction cups to carry loose fibers well back under the clearer board where they cannot eyebrow and fall into the yarn.

An Armstrong's Seamless Cork Cot never permits loose fibers to accumulate at the front of the clearer board where they can eyebrow and fall into the yarn. Instead, its high-friction surface packs loose fibers well back under the clearer where they belong. Armstrong's Cork Cots in many mills also reduce clearer waste as much as 50%. This not only helps produce a stronger, more uniform yarn but also reduces the necessary amount of clearer picking to a minimum.

These high-friction cots are economical, too. Low in first cost, they can be installed with a minimum of roll shop labor. They come to you seamless and preglued, ready to slip on the roll in one simple operation. An occasional buffing is all that's needed to keep them spinning like new, and they'll give from two to three years of front line service.

Next time the Armstrong representative calls at your mill, ask him about a test installation of these cots. He'll be glad to arrange it, with no obligation to you. Write Armstrong Cork Company, Textile Products Department, 8304 Arch Street, Lancaster, Penna. Available for export.

ARMSTRONG'S CORK COTS

for high-quality spinning . . . at low cost

For more information, write direct or use Reader Service post card.

both heavy- and light-duty constructions with a sufficient number of pulleys to give an adequate range of speed ratios.

In addition to its anti-slip characteristic and precision timing, the new belt will not stretch. It will operate on fixed centers without take-up adjustments. Since it needs no initial tension, the belt has unusually high efficiency with extremely low bearing pressure. Tests have shown that the belt operates more quietly than precision gears runing in an oil bath.

The belt requires no lubrication. However, oil will not harm it, the company states. The belt is unusually compact, and speed ratios up to 30:1 are possible with it. The belt's extreme flexibility permits pulley diameters as small as ½ in. at 10,000 rpm. even with a heavy driven load.

Maintenance costs are said to be low because of the absence of take-up mechanisms, elimination of lubrication, and elimination of power waste. The initial cost of the belt may be lower than other types of drives because of smaller drive constructions.

The belt can also be used to achieve greater uniformity in the productive rate of industrial machinery, it is claimed. Such uniformity is important in piece-work operations where there is a loss of production due to belt slippage in otherwise identical machines.

The belt is similar in appearance to a flat belt except that it has regularly spaced rubber teeth along its inner surface which engage in corresponding grooves in the pulleys.

Metal-Detector Design Improved

Further mechanical and electronic improvements on the RCA electronic metal detector have been announced by Eriez Mfg. Co., Erie, Pa., sole domestic and Canadian distributor.

The RCA metal detector is an automatic inspector which warns of the presence of all magnetic or non-magnetic metals or alloys regardless of their depth in the material. Particles as small as 39 thousandths of an inch in diameter have been detected. Units have been in use for more than six years.

Improvements have been made on the main tie-bolts between the two heads of the unit. They are now made of steel instead of brass to provide greater strength and more rigidity, and improved stability is said to result.

Dust-covers over the balance-control access holes will now open wider. Covers will also be provided with tabs to assist in opening and will provide easier access to the balance controls.

Further mechanical improvements include the orientation of screw-driver slots so that the position of the control is more easily determined. The terminal for the external ground connection will now be permanently fastened.

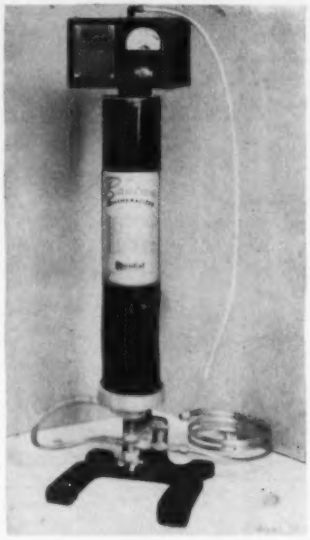
Provisions for air circulation around the chassis have been altered to guard against the possibility of nuts falling through the ventilating openings.

An electronic change in the balance-meter circuit has been made to eliminate the high-voltage connections that were above the chassis.

Oscillator coils are now accurately marked and matched to afford easier initial balancing and greater stability during service.

Further electronic changes have also been made in the circuit of the cathode-delay capacitor. The protective relay on the oscillator chassis has been relocated; an additional radio-frequency bypass has been provided on the receiver chassis; a pickup coil of new design has been introduced to reduce any capacitive effect from products; and a new pin-jack on the receiver chassis will allow for the direct measurement of unbalanced voltages.

Demineralizer Has Direct-Reading Meter



***WATER PURITY** in parts per million and in ohms of electrical resistance is given directly on the meter attached to the lab-size demineralizer.*

The Bantam Demineralizer made by Barnstead Still & Sterilizer Co., 2 Lanesville Terrace, Forest Hills, Boston 31, Mass., is now equipped with a direct-reading meter which indicates water purity. This feature tells the purity of the water at any time and maintains a constant purity check on the flow of demineralized water. For convenience, the instrument is calibrated in parts per million and also in ohms electrical resistance.

The Bantam Demineralizer also has a needle-type regulating valve for easy flow adjustment, a drain valve, and a base for bench mounting. The base may be removed if wall mounting is desired.

Useful Accessories for Textile Mills

▶To request further information on any item, please use the card in the Reader-Service dept.; refer to the number at the end of the item concerned.

Double-Step Safety Ladder

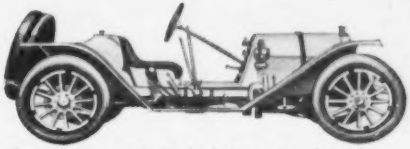
A new A-type safety ladder has been announced by the Ballymore Co., 139 Pennsylvania Ave., Wayne, Pa. The Ballymore ladder is made with steps on both sides so that two or more people can use the ladder at one time on large assembly jobs and in stock room aisles. When no one is on the ladder, it rolls easily on swivel casters. The weight of a person on the ladder causes the spring-mounted casters to deflect enough to permit the rubber-tipped legs to engage the floor and thus prevent the ladder from rolling. (U-1)

Easy-Pour Tilter

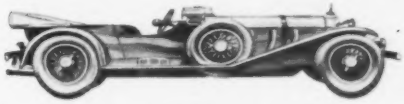
An easy-pour tilter designed to prevent accidents caused by spilling, splashing, and carelessness in pouring liquids has been announced by General Scientific Equipment Co., 1015 Packard Bldg., Philadelphia 2, Pa. Built on scientific lines, the GS easy-pour tilter #15 provides a

FOR SPORTSMEN ONLY···

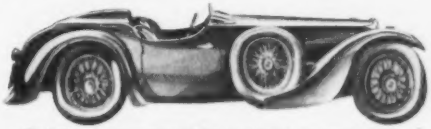
Which of these famous sports cars can you identify?



1 American . . . T-head, 4-cylinder engine, shaft-drive. Great rival of Stutz "Bear Cat."



2 German . . . SSK 38-250 H.P. model. Super-charged—capable of 110 mph!



3 Italian . . . Rare type 57 SC, 8-cylinder, super-charged, sports chassis. Speeds up to 130 mph!

4 French . . . 12-cylinder, 220 H.P. sports sedan. Speeds over 110 mph!

See next column for answers.

FOR CHEMICAL USERS ONLY···

Which of these B&A Fine Chemicals fit your production needs?

★ SODIUM HYDROXIDE, Chip, U.S.P. Grade

Since it is particularly low in potassium and nickel, this B&A Fine Chemical offers many advantages in a host of exacting applications. The chip form is easy to handle, economical to use, and is available in tonnage quantities.

★ POTASSIUM NITRITE, Fused Lump

Production of Potassium Nitrite in commercial quantities was pioneered by General Chemical to meet vital World War II needs. Assaying 90% minimum KNO_2, this fine chemical is available exclusively from B&A. Present applications include use as a heat-transfer medium, and the preparation of heat-treating salts.

AMMONIUM FLUOBORATE, Cryst., Tech.

Finding wide-spread use in the aluminum and magnesium industry as an oxidation preventative, B&A Ammonium Fluoborate gives a combination of fluorine and boron in the form of easily-handled salts. Its uniform quality helps the user obtain consistent performance in many foundry operations.

★ LEAD NITRATE

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Just as these famous types are examples of some of the greatest sports cars ever built, the above products are typical of the diversity in "B&A Quality" Fine Chemicals. To meet the needs of today's chemical process industries, B&A offers a wide range of these products. Many of them may be suitable for your requirements. For a new, complete listing, write today for booklet FC-4.

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safe and easy pouring of liquids from cans into small containers. The cradle is made of steel and fits any standard 5-gal. can. All members are riveted or welded to insure strength and durability. (U-2)

Electric Air-Filter Enclosure

A complete enclosure for commercial and industrial types of electric air filters has been announced by Trion, Inc., McKees Rocks, Pa. The completely integrated enclosure consists of heavy sheet-metal paneling throughout. Rigidly constructed access doors have the safety factor of built-in door interlocks. Time delay switches cut off all power before the doors can be opened. All component parts are included as standard equipment. Specifications in ordering can be easily stated by simply giving the desired dimensions of the enclosure required. (U-3)

High-Bay Industrial Lamps

Two high-wattage industrial lamps with built-in reflectors for use in the lighting of high-bay factories have been announced by General Electric Lamp Dept., Nela Park, Cleveland 12, Ohio. Because very little dirt collects on the bottom of the bulbs where light is emitted, the new lamps are said to be especially suited for use in locations where dirt collection usually causes severe reductions in light levels. The lights are produced in 500- and 750-watt sizes. A new bulb, R-52, has a special contour to distribute light downward for effective use in working areas. (U-4)

Line of Trolleys

A new line of Wright-Way trolleys, available in sizes from ½-ton to 3-ton capacities, has been announced by Wright Hoist Div., American Chain & Cable Co., Inc., York, Pa. These low-cost, light-weight, compact trolleys are made for use in industrial applications that do not require the high efficiency of high safety factor of Wright, Timken, Hyatt, or S.A.R.B. trolleys. Wright-Way trolleys are said to be reasonably efficient, easy-rolling units that are safe and durable. A minimum factor of safety of three-to-one is standard for all sizes of the plain trolleys built only for standard I-beam sizes. (U-5)

Lubrication Service Cart

A compact two-wheeled grease rig has been announced by Gray Co., Inc., Graco Sq., Minneapolis 13, Minn. The Graco Lube service cart is designed for easy moving around and easy using. The unit is completely self-contained, requires no air supply, and is equipped for either

(Continued on page 326)

DYES & CHEMICALS

Deodorant Eliminates Amine and Sulphite Odors

A new non-toxic and highly concentrated deodorant, called N.O.R. 333/3 w/s ALB., has been developed by Phillips Scientific Laboratories, 23-E Garden Terrace, North Arlington, N. J. The deodorant is said to eliminate objectionable odors caused in mills and yarn-producing plants.

The amine odors that develop during curing and adher to fabrics are said to be eliminated if 40cc. of this product is added to the resin mixture prior to cloth immersion. This 40cc. is the requirement per ton of fabric.

The same quantity of the product is said to eliminate sulphite odors that develop during the course of fiber manufacture. The quantity is based on a ton of fiber, yarn, or filament.

The manufacturer states that the physical constants and chemical structure are in no way affected by the use of this deodorant. Lead-acetate test paper is said to remain positive, with or without the addition of the product. The cost of the product per ton of fabric or fiber is reported as 11¢.

New Treatment Improves Wash Fastness of Wool

The treatment of wool with epichlorhydrin, which was first discovered by Bertholet in 1856, is described in British Patent 644213. Treatment with epichlorhydrin is said to give wool fiber increased weight, better washing fastness in the case of dyed wool, and a greater resistance to abrasion.

The treatment can be applied to wool which has been chlorinated to make it unshrinkable. According to the patent, the application of the epichlorhydrin should be made from water solution under strictly controlled conditions. In general, it is recommended that the wool be treated for 1 to 2 hr. in a ¼ to 1% solution at 175 to 200° F.

This treatment can be carried out *before or after dyeing; but when bright* shades are required, it is said to be best to dye after the epichlorhydrin treatment. When dull shades are desired, it is best to dye first and add the epichlorhydrin to the spent liquor.

It is claimed that the epichlorhydrin treatment may increase weights up to 10% and abrasion resistance up to 30%. It also improves wash fastness.

Contrasting Colors In Wool Obtained With New Techniques

A new dyeing technique that permits two or more contrasting colors to be dyed in wool in any state has been discovered by Arthur J. I. Harding, chairman and managing director, Fosse Dyeworks Ltd., Syston, Leicester, England. The technique can be used on raw stock, yarns, piece goods, or hosiery. The process can be carried out with dyes of varying fastness characteristics; and the yarn, fabric, or hosiery can be treated for shrink resistance.

In the development of this technique, Mr. Harding obtained four distinct results: (1) two or more contrasting colors dyed in wool; (2) a unique fleck effect; (3) an ingrain effect without using ingrain yarns; and (4) tone-in-tone colors.

A complete range of colors can be obtained with this process, and the process has been proved already in mill-scale operations. The products of the process are said to have a good hand, resistance to light, and fastness to washing. In blends of wool and cotton or wool and rayon, the wool component can be dyed two contrasting colors or given a fleck effect, and the remaining fibers can be dyed an entirely different color. Also half-hose can be made up and then dyed, or the wool yarn can be dyed and then knitted.

Water-Soluble Dyestuffs Suitable For Cotton And Rayon

A new dyestuff, Algosol Grey IHL-CF, *has been developed especially for dyeing and printing cotton and rayon by* General Aniline Works, General Dyestuff Corp., 435 Hudson St., New York 14. The dyestuff is intended for gray shades when the very best fastness and light are required, such as for draperies and upholstery fabrics.

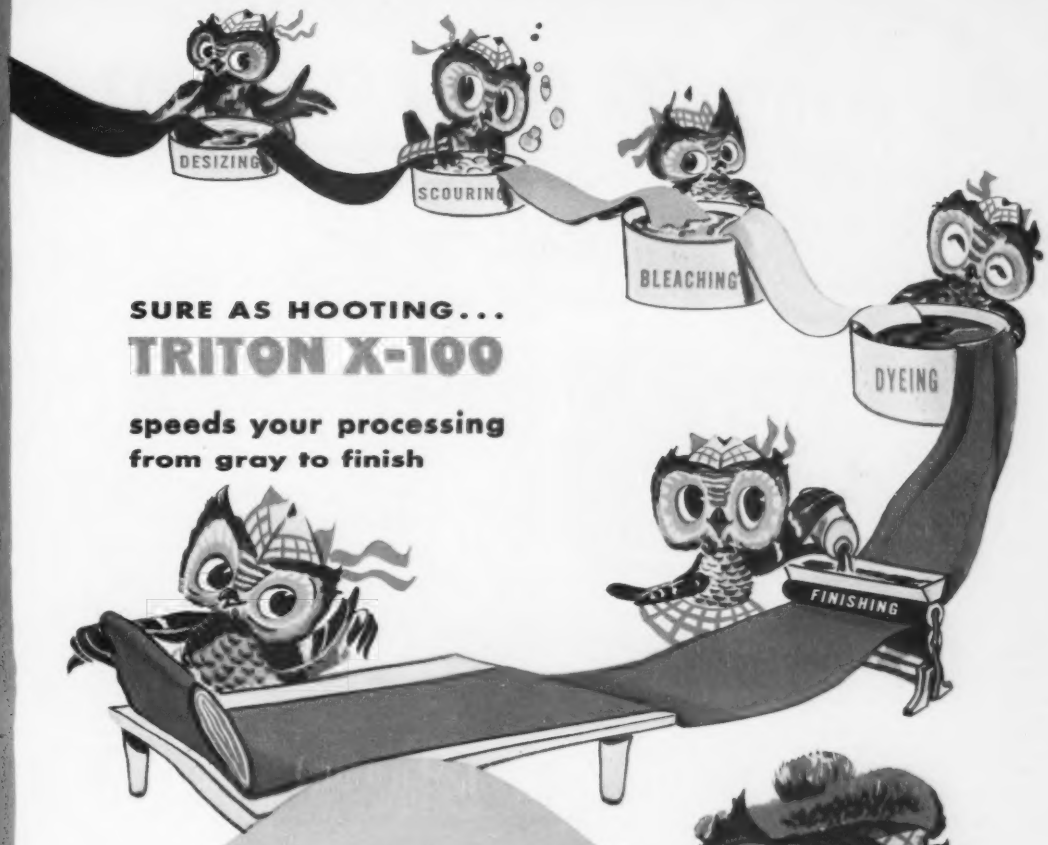
The dyestuff is said to give excellent (7) fastness to light, very good to excellent (4 to 5) fastness to washing, and excellent (5) fastness to chlorine. These characteristics make it useful also for dyeing tablecloths, shirtings, and washable dress goods.

The gray shades produced with this dyestuff are toward the reddish-blue side, and are considerably redder and duller than those obtained with Algosol Grey IBL; also the fastness to light on cellulosic fibers is better with the IHL brand than with the IBL brand.

Algosol Grey IHL-CF can be printed on cotton, rayon, or linen by either machine or hand-printing methods to give grays that are much faster to light than the corresponding gray shades produced with Rapidogen blacks cut to gray. Relative freedom from copper and manganese (CF brand) permits use of this dyestuff on goods that are to be rubberized.

The dyestuff can be used in continuous ranges, circulating machines, skein-dyeing machines, dye becks and jigs. Solid gray shades on cotton-rayon materials can be obtained in continuous application by padding. The dyestuff is easily resisted and is suitable for resist padding.

Dyeings of this gray are fast to caustic soda, which makes them suitable for plissé effects and for goods that are to be mercerized after dyeing.



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TRITON X-100 is a concentrated 100% active penetrant and detergent, non-ionic, and alkali-and-acid stable. As a scouring agent for wool, cotton and synthetic fibres, it is a fast wetter, an excellent detergent and an outstanding emulsifier for oil and grease. And in dyeing and finishing too, it speeds processing and cuts costs. Be wise and thrifty. Send for full details of TRITON X-100 today.

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Exploring THE TEXTILE COMMUNITY

By MILDRED BARNWELL ANDREWS

The SUGGESTION BOX— An Incentive Generator

MILDRED ANDREWS

I was the last person aboard the big airliner and was out of breath from my last run to make it. The young steward gasped when he saw me push through the narrow door for I was loaded with a miscellany of objects—the kind I don't want to accumulate but which somehow always seem to accumulate *me* no matter where I am going. I had slung over my arms and tucked under my arms my brief case, knitting bag, the new magazine I had not had time to read, my pet pillow, a burdensomely heavy fur coat very much out of place and in the way in Memphis, Tenn., on a sticky warmish winter day. I held and sort of dragged two bulky home-wrapped packages, one an oversized framed picture too fragile for shipping, the other a 14-lb. country-cured ham presented as a parting gift just as I left the Delta. The steward waved me to the nearest vacant seat into which I collapsed as the plane's motors started. My bags, coats, and bundles were piled in my lap and upon each other. As we reached altitude and leveled off at cruising speed the steward came to help me get comfortable. He parked my packages, hung up my coat, fixed the pillow at my back and then brought some hot coffee. A little later he came back with a survey blank.

"Our company is taking an opinion poll," he said. "Would you mind filling it in?" Every airline is taking opinion polls these days on everything . . . such as: is the trip business or pleasure, how often do you use our lines, how often do you use other lines, etc. . . . I filled in the sheet he handed me and when he returned to pick it up we talked about it and the general cooperation of passengers and other things. I found he was a college grad, that he hoped to work up to the top, and that he was eager to please his passengers as well as his company.

"We pick up some good ideas when we are talking with the people who travel," he said. "Our passengers don't hesitate to tell me, for instance, how things should be done to suit them and I send the good suggestions along to the main office. Of course," he added, "it is discouraging to send in a dozen or so and get no acknowledgment. The incentive wears off then and it is hard to take the time to put the next suggestion on paper for someone to pay no attention to."

Suggestions Can Pay Off . . .

Suggestions can be annoying perhaps, but anyone who receives them can profit in some way by examining them closely for possible use. After all, someone was prompted by something to make it in the first place. Before I left the plane that night I had my brief case open and was checking over notes taken during my travels to see what there was on the use of suggestion boxes in textile mills. The idea of suggestion boxes is not a new one, but how the box is popularized and the suggestions handled can mean a lot to management and to the worker. More and more workers are learning to want to use them. And better managements are studying best methods to make the boxes advantageous to both mill and worker.

Hathaway Mfg. Co. in New Bedford, Mass., has a profitable suggestion box which results in the payment of nice cash awards to mill workers who offer prize-winning suggestions. There the suggestions are picked up from the boxes each week. They are sorted, routed to the proper division, checked, and sent to the suggestion committee which meets twice a month to consider each suggestion carefully. Suggestions are accepted or rejected by the committee, or in some cases marked for further investigation. Reply tickets on the suggestion boxes indicate the decisions made and list employees who are in line for awards. The committee gladly listens to inquiries from any employee who "wonders what happened to that suggestion sent in last month," and will assist employees in preparing suggestions if they need help.

It has been found, too, that it is important for the suggesters to give their names and addresses on the suggestion blanks, because if the idea is a good one or the committee needs more information to make the suggestion effective, knowing who sent it in facilitates getting it adopted. If names are not given, a numbered-blank system should be adopted with a numbered stub on the blank which the employee can retain.

How One Southern Mill Does It . . .

A mill in the South has its supervisory staff, superintendents, and overseers act as suggestion committee. This group meets regularly once a week and analyzes each suggestion from the angle of practical application and cost of inauguration measured against probable savings or improvements the suggestion may offer. Some member of the committee interviews the suggester telling how they intend to use the suggestion if it is adopted, or why it was impractical to use it if the suggestion was not allowed.

"Of course," said one member of the committee laughing at the recollection, "we get all kinds, from improving technical operations to furnishing high-class entertainment. And we consider every single one. Last summer we had a barbecue as a result of one suggestion. And once someone carefully prepared a suggestion form with the idea that I go jump in the lake and drown! But," he added with a twinkle, "as you see that suggestion was not adopted."

(Continued on page 238)

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A CLEAVER-BROOKS STEAM BOILER GIVES YOU:

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✓ Equally high efficiency (80%) operating with oil or gas.

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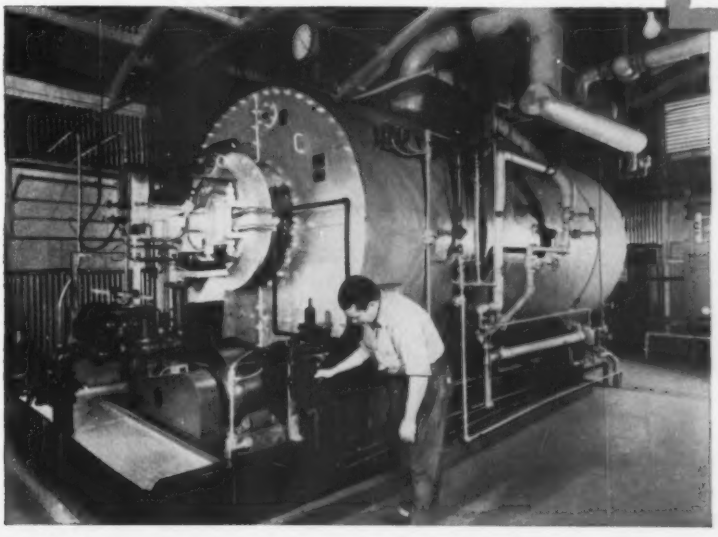

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GETTING THE MOST FROM WINDING

Information about winding designed to show improvements in winding equipment and new ideas in the winding operation

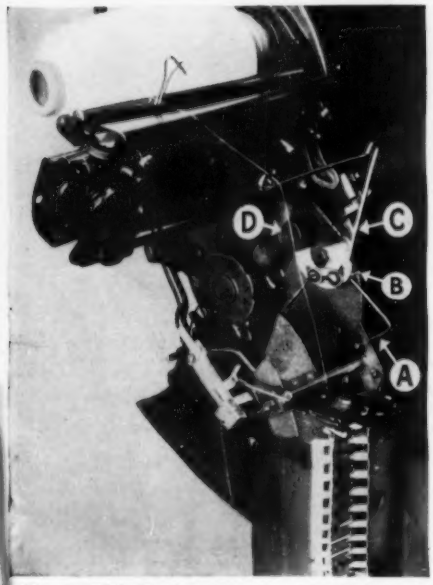

Fig. 1. High Breakage Lever on No. 50 Winder.

NEW HIGH BREAKAGE LEVER GIVES BETTER TENSION CONTROL No. 50 Precision Winder

Fine-denier filament yarns that require extremely light tension can be wound with more accurate control of tension by equipping No. 50 Precision Winders with the new High Breakage Lever.

As illustrated in Fig. 1, the Breakage Lever extends upward from the hub to which it is attached and thus permits the yarn to pass *over* it. A much straighter thread line between tension and winding point is achieved because the yarn is subjected to only a slight angle as it passes the breakage lever and this angle decreases as the winding package builds up.

When the High Breakage Lever is used, extremely light tensions can be obtained without causing the breakage lever to "flutter" and place uncontrolled tension on the yarn.

The High Breakage Lever was designed primarily for winding filament yarns with the anti-wear tension, but it can also be used for other types of yarn and with the regular finger tension. It is now optional equipment on new machines. It can be applied to existing equipment by merely cutting off the standard breakage lever to form a breakage lever stop, as shown at A in Fig. 1, and then applying a filling plate (50-3499) between the hub (B) and the High Breakage Lever (C).

If desired, a new breakage lever stop (50-3453-2) can also be supplied.

When the High Breakage Lever is used on No. 50 Precision Winders equipped with the Positive Sizing Attachment, the weight (D) must be on the *outer* side of the balance as illustrated.

QUICK-DOFFING TUBE HOLDER No. 50 Precision Winder

5/8 in. parallel tubes are more quickly donned and doffed when No. 50 Winders are equipped with holders having spring expanders (Fig. 2).

The spring expander bites into the tube and holds it firmly on the holder while winding, yet releases the tube readily for doffing.

In most cases, the single spring is sufficient to hold the tube firmly in place during winding; therefore, tube holder 5-10-23X is supplied as standard equipment. But when heavier yarns or materials are being wound, the single spring expander is not always able to overcome the pull of the yarn which may result in the tube turning on the holder. In such cases, we recommend the tube holder 5-10-23-16X which has two spring expanders and thus provides a greater gripping surface. This tube holder is supplied as optional equipment.

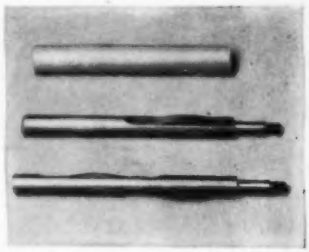

Fig. 2. Quick-doffing tube holders. The lower one is recommended for heavier yarns.

23.0.5

April 1951

WINDING AND TWISTING MACHINERY FOR NATURAL AND SYNTHETIC YARNS

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Letters from readers, *of both technical and general interest, will be considered for publication in these columns for the benefit of the textile industry. If you wish to add your knowledge and ideas to those expressed in the Round Table or elsewhere in* TEXTILE WORLD, *please write us a letter, or use the Reader-Service card bound into each issue. Origin of your letter will be kept confidential upon request in writing at the time you submit your contribution, but be sure to sign your name as evidence of good faith.*

Round Table

LETTERS FROM OUR READERS

LOOK—NO RULES!

Dear Editor:

Congratulations on your fine article in the January issue, page 131, entitled "Look —No Rules for Carding and Spinning Calculations."

I have followed this practice of "no rules" in teaching these calculations here in our work in the past, and find this method to be the only satisfactory one. Students must learn the basic principles of calculations; then they can do any necessary calculation on any type of machine.

We would be pleased to have about a dozen reprints for our use here in the department.

L. E. PARSONS
Dept. of Textile Engineering
Texas Technological College
Lubbock, Texas

EMPLOYEE EDUCATION NEEDED

Dear Editor:

Three curses of our American civilization are inordinate greed, economic ignorance, and political demagoguery. A primary cause of bad industrial relations and bad labor legislation is misunderstanding of our economic system among industrial employees.

The rank-and-file employees are endlessly victimized by false propaganda about our industrial system. In my judgment, combatting this propaganda and dispelling economic ignorance among employees is essential to the preservation of free enterprise. On our present road we are headed straight for socialism.

My experience shows that employees are hungry for economic information and that they can understand economic facts just as well as the boss when they are presented fairly without bias or propaganda. Excellent programs have been devised for various industries. There is a vital need for such programs in all industries.

This very definitely applies to the textile industry.

NEIL CAROTHERS
Dean Emeritus, Lehigh University
Bethlehem, Pa.

OPEN WORSTED CONSTRUCTION

Dear Editor:

Some years ago, woolen manufacturers in Britain were called upon to produce lighter-weight fabrics. The natural tendency was to use finer-count yarns, but it was found that the extra cost of spinning and weaving cancelled out any extra price advantage gained. The use of medium-count wool yarns with more open settings was therefore resorted to.

The question now arises as to what is the minimum construction for a cloth to give reasonable wear. It has been found in the case of woolens that a reduction of up to 50% below normal in the sley and pick count is possible. Final quality needed has an important bearing on the question, of course, and slippage one way or another must always be considered. Low cross-bred wools, for example, are more susceptible to slipping than finer qualities.

A lack of ends or picks in worsteds is more critical than with woolens. In general, it is not advisable to under-construct worsted cloths by more than one-third below normal, and even this much is debatable when final quality is important.

BRITISHER
Huddersfield, England

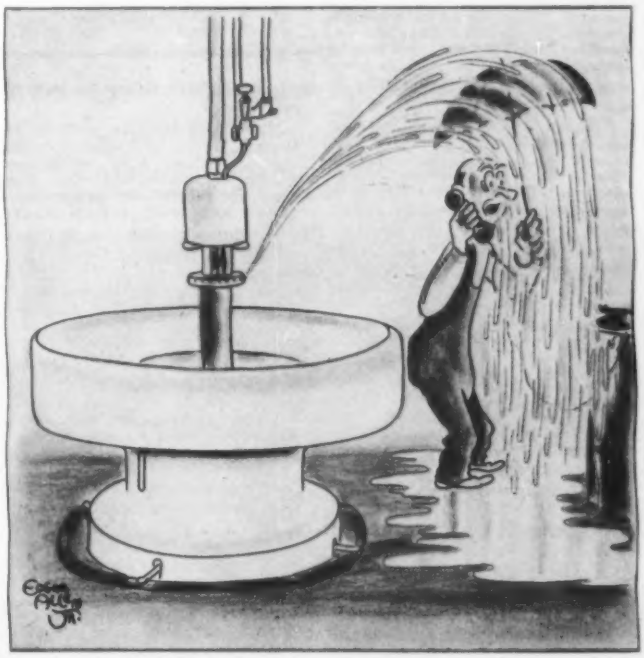
WOOL'S LIMITATIONS

Dear Editor:

In reply to your request for further information on Dr. Harold P. Lundgren's talks at the California wool conference in January, we think you might wish to use the following excerpts:

"The total amount of research on wool and mohair has been insignificant as com-

TEXTILE TICKLES . . . . . By Edgar Allen, Jr.



"Master Mechanic, please! I have a slight complaint!"

pared, for example, with that on cotton and synthetic fibers. As much as 3¢ of every sales dollar from synthetics is reinvested in research. The amount spent on wool and mohair research can nowhere compare with this figure.

"Perhaps one reason why wool and mohair research has not been pushed has been the attitude that these are perfect fibers. One commonly hears that 'wool is a product of nature and cannot be improved.'

"There is a good answer to this comment. Nature did not intend man to use wool, let alone put it into hot water. As long as he intends to use it, it is up to him to do something to overcome its obvious limitations.

"The situation is not unlike that of rubber a century ago. Natural rubber is a sticky latex. It was not until Goodyear discovered that rubber could be vulcanized by chemical modification with sulphur that it was possible for rubber to become the remarkably versatile substance that it is today.

"Nature did supply sulphur to wool and mohair as a vulcanizing agent, but the way in which she hooked the sulphur into these materials is such that they do not withstand the action of hot water, moths, fungi, alkaline conditions, oxidizing and reducing agents—and even sunlight. Wool is damaged on the sheep by exposure to alkaline environments, to excessive moisture, to improper diet.

"In addition, once wool gets into a mill, it is damaged in scouring by the soda and by the mechanical agitation, in carbonizing by the strong acid, in carding and combing by the tearing action of the clothing and combs, in steam-setting by the hot water, and in spinning and weaving by tensions. Though it is amazing how wool stands up as well as it does, it is nonetheless apparent that a new attitude toward wool and mohair must be adopted by many people.

"Wool is not the inert solid that many consider it; it is a reactive chemical. Wool is made up of molecules in unique configuration, having a definite stability only within certain limits. It is accordingly an appropriate subject for chemical modification.

"From this point of view, therefore, we recognize opportunity for streamlining age-old methods, for speeding up processing, finding milder conditions of treatment, and developing new properties in wool and mohair to extend their range of usefulness."

W. B. Van Arsdel
Western Regional Research Lab.
Albany, Calif.

DETERMINING SIZE PERFORMANCE

Dear Editor:

The subject matter of Mr. Foster Williams' article, "Why You Should Worry About Size Viscosity," [TW, Jan., '51, p. 126] has for some time been the subject of a more or less continuous program in our laboratory. Our findings agree with those of Mr. Williams, but indicate that he has oversimplified the meaning of size viscosity. We believe this oversimplification may lead to erroneous conclusions by your readers.

Mr. Williams infers that since the type of starch, method and degree of cooking, size temperature, degree of agitation, amount of dilution, and other factors affect size viscosity, the maintenance of viscosity between narrow limits automatically insures consistent sizing results. Actually, the measurement of viscosity is an indication of any of these variables *only if other variables have not changed.* Thus viscosity is valuable for control purposes only when the same starch is prepared in successive batches in precisely the same way. Any single error or change in the base material or in the size preparation may result in a viscosity change.

Size pickup by warps is more roughly proportional to size concentration than to viscosity, while viscosity largely influences (for a given concentration) the degree of penetration on a given warp. If other variables are maintained constant, the viscosity of a size varies as its concentration. Thus size pickup by a warp is more or less a function of the viscosity, as shown in Mr. Williams' graph at the head of his article.

Many characteristics of a starch (other than viscosity) are factors in determining its performance as a size. Among them are (1) colloidal properties when cooked or dispersed, (2) ability to "bind" water (which influences its penetration characteristics), (3) ability to form smooth, continuous films on drying, (4) its tendency to jell or thicken on aging, and (5) its degree of cohesiveness or stringiness (which influences both its penetration and its behavior on warps as they pass through the nip). The lack of presence of any of the five factors might affect the usefulness of a size, regardless of its viscosity.

Use of Viscometers

As regards size viscosities, values obtained by the usual viscometers are grossly affected by some of the other characteristics mentioned above. Starch pastes or sizes are by nature a function of the conditions imposed on a size by the instrument during the measurement operation.

For example, as slight a change as varying the orifice size in a usual flow-type viscometer may reverse the comparative viscosities of two sizes previously checked with a viscometer with a different-sized opening. Similarly, the use of different-type viscometers may cause even wider variations in the comparative viscosities of different starch sizes.

Textile starches may be modified or converted by any one of several processes

(Continued on page 230)

TEST YOUR TEXTILE I Q

▶ Each correct answer rates 10 points. A total of 70 is passing; 80, good; 90, excellent; 100—you're a genius! Keys to answers are on page 234.

1. The all-time high in textile-mill activity was in the year:
   a. 1938 c. 1946
   b. 1942 d. 1950

2. The fiber consumed in the greatest quantity in the U. S. in 1950 was:
   a. cotton c. rayon
   b. wool d. silk

3. In 1950, the greatest purchasing activity by mills, in dollar volume, was in:
   a. auxiliary equipment c. supplies and accessories
   b. knitting machines d. finishing equipment

4. Materials handling in mills accounts for what percent of labor costs?
   a. 2% c. 19%
   b. 10%. d. 31%

5. As a result of nep research, excellent work has been gotten with lickerin speeds as high as:
   a. 500 rpm. c. 700 rpm.
   b. 600 rpm. d. 800 rpm.

6. A new picker knock-off will give laps of any length from:
   a. 2 to 20 yd. c. 6 to 60 yd.
   b. 4 to 40 yd. d. 8 to 80 yd.

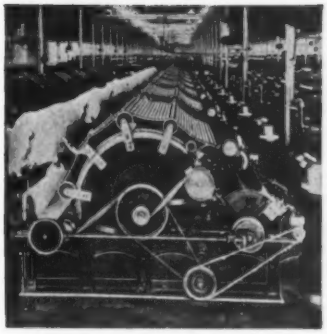
7. New triple-hybrid cottons have fiber strength up to:
   a. 70,000 psi. c. 120,000 psi.
   b. 100,000 psi. d. 150,000 psi.

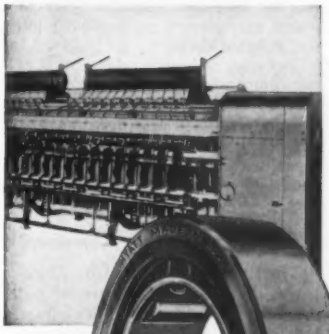
8. A new loom has been developed in France. It:
   a. weaves four fabrics c. requires 50-hp. motor
   b. uses no shuttle d. runs at 1,000 ppm.

9. With a Pacific Converter, the card can be by-passed if you are running:
   a. acetate c. nylon and viscose
   b. viscose and acetate d. nylon and acetate

10. If a bearing fit is unusually tight, you should:
    a. freeze it c. hammer it on
    b. heat it d. grease it more

Greater production plus *Greater* savings with HYATTS



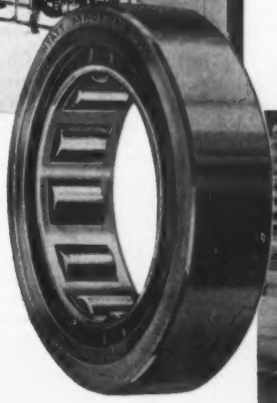


Modern, Hyatt-equipped textile machinery is producing more and better cloth at less cost.

How? Because with Hyatt Roller Bearings built in, faster operation is assured, power costs reduced and only infrequent lubrication required.

And another decided advantage of Hyatt-equipped looms, preparatory and finishing machinery is the cleaner yarn and cloth produced, because there is no leakage of grease or oil from these bearings.

When ordering new textile machinery specify Hyatt Roller Bearings for greater savings. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.



HYATT ROLLER BEARINGS

For more information, write direct or use Reader Service post card.

INDUSTRIAL RELATIONS Ideas You Can Use

Pointers FOR SUPERVISORS

By PAUL KING
Ass't. to Vice President for Personnel
Bigelow-Sanford Carpet Co.

What's New in Industrial Relations

In industrial relations, as in many other fields, there's really very little under the sun that is entirely new. But a slightly different twist, a variation in application of an old idea may increase its effectiveness a hundred times.

Here are some effective industrial-relations ideas currently being used in our industry and others that you may want to adopt in whole or in part in your own company.

It is the hope of the author that you will bring to his attention, for publication here, those effective ideas developed in your company that may be of help to others. Company names will be withheld if you wish. The only requirement is—Has the idea worked? Address Paul King, TEXTILE WORLD, 330 West 42nd St., New York 18, N. Y.

Calendar Photo Contest Arouses Employee Interest

American Viscose's Calendar Contest gave the camera fans among its employees a new interest in the company and the company an attractive calendar.

The contest, announced in the company's employee publication, called for employees to submit 35-mm. color transparencies depicting familiar plant community scenes. Fifty dollars was awarded for each photo used.

A scene was selected for each month of the year. The result was an exceptionally professional and attractive calendar and another group of employees that became interested in their company.

Vacation Awards Promote Suggestion System

A suggestion system will fall apart at the seams unless from time to time an effective promotion is undertaken. One company we know of developed this timely boost for its system: a vacation contest.

If the suggestion was worth $500 to $1,000 to the company, a winner would receive a $250 ten-day vacation. If it was worth $1,000 or more, the award was a $500 two-week vacation.

This kind of prize gives you the opportunity of posting notices and bulletins that appeal to the employee's imagination. Posters depicting luxurious cruises and carefree idleness at seashore results are far more appealing than the usual awards in dollar amounts.

Of course, if an employee wishes the money instead, he should be given the privilege of converting.

Annual Reports for Employees Needn't Be Costly

You do not have to run a multi-million dollar plant to do a multi-million dollar employee-relations job—nor need you spend multi-millions.

For example, several large companies spend huge sums in developing special annual reports for employees. These reports are simplified versions of the more technical annual report sent to stockholders.

But the Textileather Corp., Toledo, Ohio, prepared a modest special annual report for its employees. Nothing elaborate, it wasn't in three different colors nor were many hundreds of dollars spent in artwork. It was a plain, black and white photo-offset job. But it was just as effective as any of the more expensive jobs we have looked at. Behind it was a new idea. The story of the company's activities was told in dialogue—much like the radio's famous breakfast husband-and-wife serials.

Another feature of the report—something larger companies aren't always able to do: The president of the company promised to answer personally any questions about the report asked by employees.

Turnover Story Makes Good Item for Employee Paper

Looking for a good human-interest story for your employee publication—and at the same time an informative one?

Tell your employees about job turnover. This kind of story was included in Better Living, the employee magazine put out for Du Pont employees.

The story furnished employees with a chart describing job-turnover trends in the company. Then followed the story of turnover—what it was, what caused it, etc. The article included the pictures of six people who left the company for such reasons as maternity, marriage, resignation, retirement, and so on. Under each photo was a thumbnail sketch of what happened to these people when they left. Also pictured were six people who came to work for the company with the story of where they came from and what job was assigned them.

The story ends with a description of the company's efforts to reduce turnover, to increase job stability and security. Described are the company's effort to select employees carefully, supervise them well, furnish them with good pay and promotional opportunities.

Who's Boss In Your Company?

The Rhinelander Paper Co., Rhinelander, Wis., makers of glassine and greaseproof paper used in wrappings, tells its employees that its customers are boss.

And it has a dramatic way of bringing this message home.

First, each employee receives a pamphlet called "Meet the Boss." It reads:

"The Boss of our company is not our president—not the board of directors—not any handful of executives or heads of departments who may have on-the-scene administrative authority. The true boss is the CUSTOMER. When he speaks, we go into action. When we improve a grade of paper, install a new piece of equipment, work overtime, hop a train or a plane, it is because of his needs and demands. He pays all of the bills—makes valid every one of our paychecks."

Then, each pay day, the employee

(*Continued on page 232*)

A touch of Magic

for added sales appeal

nylonized®

TRADE-MARK

Your nylon stockings, girdles, bras, and lingerie assume a brand new luxury in customers' eyes—when they're "Nylonized". This wonderful new finish makes nylon garments more comfortable than ever because it permits them to absorb and disperse perspiration faster. "Nylonized" is a permanent finish and does not impair the fast-drying characteristics of nylon itself.

Find out more about this amazing new process today. Write for the informative booklet, "The ABC's of Nylonizing". It tells the complete story of how this amazing new finish can add sales appeal to your line.

* The bonding of Type 8 Nylon to nylon fabrics.

Advertised in
VOGUE and THE NEW YORK TIMES.

nylonized
TRADE-MARK

a revolutionary new finish
originated by
HANS C. BICK, INC., Reading, Pennsylvania

Hans C. Bick, Inc. permits use of its trade-mark "Nylonized" only on fabrics which have been treated by procedures approved by this company.

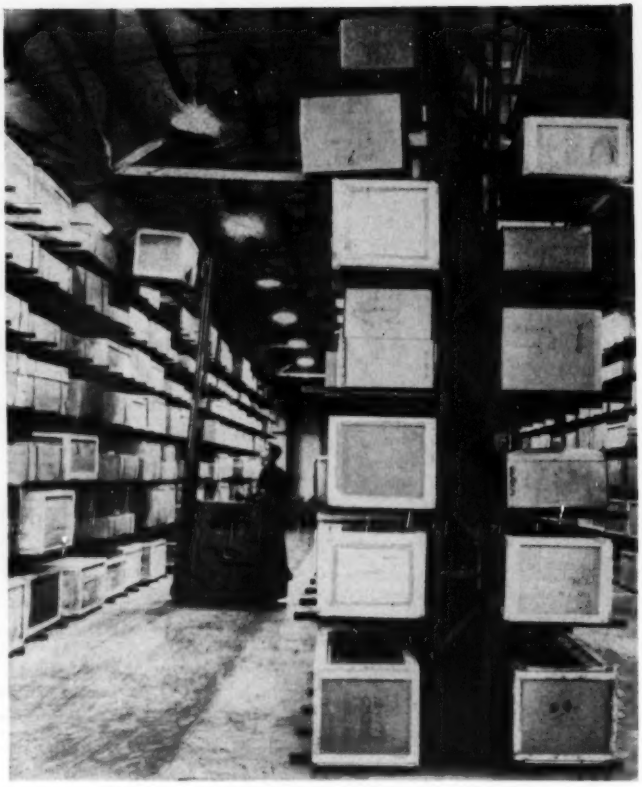
Kinks AND SHORT-CUTS

This Rack Eliminates Stacking of Cartons

Bradford Dyeing Assn., Westerly, R. I., dyers and finishers of cotton and rayon fabrics, were faced with a storage problem common to the industry. Boxes containing finished fabrics were stored in piles, one on top of another. To remove one box from the bottom of the stack, several boxes had to be taken from the top. This system of storage was unsatisfactory, especially when it was necessary to make quick shipments.

To solve this problem, Bradford engineers and engineers from Unistrut Products Co., developed a cantilever rack consisting of an H-frame section 14½ ft. high with adjustable arms 30 in. long. Each pair of arms will accommodate a 1,000-lb. load. The rack has 7 pairs of arms per side, and therefore each section will support 14,000 lb. The arms are adjustable up or down. The adjustment can be made by loosening just one bolt.

This type rack enables a fork-lift truck to place the boxes and cartons directly on the arms and eliminates the needs for pallets, thus permitting direct selection of any box rapidly without disturbing other cartons. With these racks Bradford is able to stack more goods in less floor space than they used before.



THIS TYPE RACK enables a fork-lift truck to place boxes and cartons directly on the arms of the rack. The need for pallets is eliminated, and rapid and direct selection of any particular box, without disturbing other merchandise, is possible.

Here's My Idea for a Loom Stop Signal System

I think that my idea will increase efficiency in weave rooms. I would have a control box for each section of looms to indicate to the weaver what loom is stopped and to show the source of the trouble. This electric control box would have a numbered square containing two lights—one red and one green—for each loom. One light would represent a warp stop and the other light would represent a filling stop.

This same circuit could be connected to a central control station where the fixer or overseer could have a clear picture of the running conditions in the weave room.

The system could be connected with graph recorders, and the efficiency of the room could be obtained immediately. *Louis Islas, Osorno, Mexico.*

Salvage Hosiery Preboarded On Drying Forms

Our plant bleaches and dyes unfinished second- and third-class hosiery for the salvage trade. Although our dyer knows how to dye nylon hosiery, we finish so little of it that it has not been practical to install preboarding apparatus. Recently, one of our patrons delivered 1,000 doz. nylon slacks, or what we commonly call

. . . for proof of better pumping performance!

It's been said that split-case centrifugal pumps look pretty much alike. But looking alike does not mean "like" performance!

We've lifted the casing of a Fairbanks-Morse Single-Stage Split-Case Centrifugal to show you why you get *better* performance . . . *lower* maintenance costs with Fairbanks-Morse . . . to show you important design and manufacturing differences.

Note the sturdy construction and exceptional strength provided by the arched casing and solid pump base . . . the ease with which the entire pump can be inspected or the entire rotating element removed without disturbing driver or pipe connections. Exceptionally smooth water passages reduce friction and "back eddies" to the minimum. Bearing brackets, cast integrally with pump body, maintain accurate, permanent alignment of shaft and impeller. Smooth, one-piece impeller reduces wear and maintains efficiency. Impeller is pressed on shaft over a key so that the key also drives the shaft sleeves and prevents destructive rotation of the sleeve on the shaft. Removable casing and impeller wearing rings assure easy maintenance and have streamlined water guiding surfaces for maximum pump efficiency.

These are but a few of the many performance-making features you'll find in Fairbanks-Morse Centrifugals. Your Fairbanks-Morse Pump expert will be happy to give you the complete story on these efficient, economical pumps. See him or write Fairbanks, Morse & Co., Chicago 5, Illinois.

FAIRBANKS-MORSE,

a name worth remembering

PUMPS • SCALES • ELECTRIC MOTORS
GENERATORS • LIGHT PLANTS • DIESEL,
DUAL FUEL AND GASOLINE ENGINES

anklets, to us to be dyed and boarded.

The boss dyer told our customer that he would be glad to dye and board them, if he would have them preboarded first. That was out of the question for this type of work, because a mill which finishes nylon hosiery regularly would charge more for preboarding them than our customer would have to pay us for boarding them twice. So, it was our problem; we would have to devise some means of preboarding them, or lose the deal. Here's how we did it.

We worked on the idea that we could successfully board the hosiery on our internally heated boarding forms, if we first wet the goods in cold water. The friction of the vapor from the hot form being forced through the nylon, while it was drying, gave enough resistance to form sufficient pressure to preboard the hosiery, if it was allowed 5 min. on the forms. Our dyeing instructions called for the whole lot to be boarded on size 11 forms. However, since nylon shrinks slightly when preboarded, we used a set of size-11½ forms. The additional stretching helped to build up more pressure as the vapor was forced through the fabric.

We preboarded the lot of hosiery in 1-doz. batches, dyed them in the usual way in rotary-reverse machines, and gave them a final boarding.

This lot of stockings would not compare in quality with those preboarded on standard apparatus, but they were satisfactory to our customer.

$200 GRAND PRIZE Awarded For the Best Kink Published in 1950!

Winner of the 1950 grand prize for "the best kink of the year" is William C. Gibson (shown above), of Decatur, Ga., whose kink "Electric Circuit Used To Check Bobbin Wear" also won the June 1950 monthly prize of $25.

Mr. Gibson's kink [TW, June, 1950, p. 156] was judged best of the twelve kinks which won prizes in TEXTILE WORLD's monthly contests during 1950 by the majority opinion of our editors. Accordingly, we take great pleasure in awarding the $200 grand prize to him.

Here is a condensed description of the winning kink:

We used to check inside diameters of bobbins by a spindle with a ring cut at a certain point on the acorn. If a bobbin went over this ring, it was discarded.

This method was slow. To speed it up we made the following device:

A spindle from which the whorl, but not the acorn, had been removed was mounted on a suitable base, having around its base an adjustable platform. On this platform are two flat copper plates insulated from each other. These plates are wired in a simple broken electric circuit. When they are connected electrically, a circuit is completed that causes a pilot light to come on behind a red glass indicator to show that the bobbin has worn too large and should be discarded.

The adjustable platform is set at a point just barely below the lowest point to which a bobbin could go on a spindle and still perform satisfactorily. Bobbins are placed on the spindle in the same way that a doffer places bobbins on a frame. If the bobbin touches the two plates, its metal rim completes the circuit and turns the light on.

While this arrangement as explained here is for bobbins having metal rims, it can easily be adapted for a wooden or other non-conductor-base bobbin. It would be necessary only to use double metal plates on each side of the spindle. An oversized bobbin would push the top plates down against the lower plates to complete the circuit.

$200 for Best Kink in 1951
$25 for Best Kink Each Month

In Addition to Space Payment on Acceptance

You undoubtedly know of many kinks and short cuts that are helpful to mill operators. Write them down and send them in. We pay promptly on acceptance—before publication. In addition, your kink may win the $200 check for the best kink of the year or the $25 check for the best kink of the month, maybe both!

Send in your kink now. There is always a contest going on. The more good kinks you send in, the better your chances of winning a prize in addition to earning some easy money for every kink accepted.

We will polish up your writing and will have an artist make finished drawings. But send in plenty of details so that your kink can be clearly explained. Be sure your sketch is clear and well labeled, but it need not be a polished job. Best of all, send us a good glossy photograph of it—we will pay you extra if you do and we can use it.

Look over the kinks in this and other issues. You will get ideas you can use as well as inspiration for kinks you can send in. We like items that pertain to ways for improving machines, new devices that a mill man can build, attachments or methods of merit—anything that will cut costs, improve quality, or help production.

Your published kink will be judged impartially by other mill men. In case of ties, duplicate prizes will be awarded.

RULES OF CONTEST

1. No limit to number of entries.
2. New $25 prize contest every month, $200 prize contest for the year. Monthly contest confined to kinks published that month, yearly to those published in calendar year 1951.
3. All kinks paid for on acceptance; extra payment for photographs. Drawings need not be finished (clear detailed pencil sketches will do).
4. Previously published material not eligible for prizes.
5. Unless you advise to contrary, we assume we may sign your name to kink when published.
6. Prize winners will be selected by readers, a different group each time. At least 200 will be asked to select preferred kinks in each issue. Their votes will select the best kink, and their decision will be final.

Send kinks to whichever address you prefer:

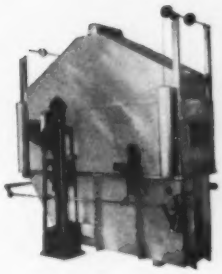
TECHNICAL EDITOR, TEXTILE WORLD
330 W. 42d St., New York 18, N. Y.

SOUTHERN EDITOR, TEXTILE WORLD
367 Ridgewood Ave., Charlotte, N. C.

NEW ENGLAND EDITOR, TEXTILE WORLD
P. O. Box 305, Salem, Mass.

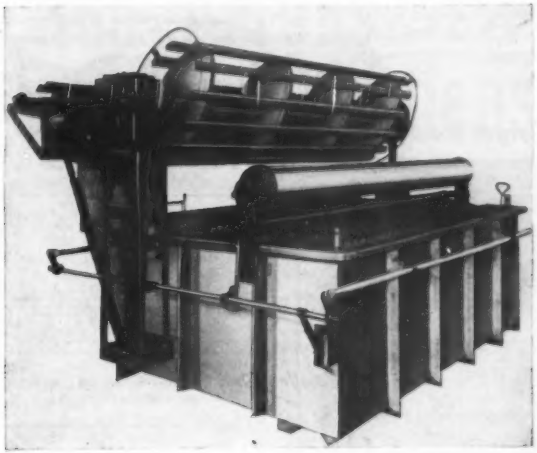
Is Dyeing Your BOTTLENECK ?

Don't let dyeing disrupt your production schedule—when there is a new Hinnekens Dye Beck, which can solve your problems!



Constructed for heavy duty, this machine is designed for a long life of trouble-free operation. The processing of materials with this new Hinnekens Dye Beck gives uniform quality to every yard of fabric.

Obtainable for either open or enclosed operation the Hinnekens Dye Becks have proven their efficient production ability—for leading processors now use them throughout the United States, Canada, Mexico, and South America.



OTHER TEXTILE EQUIPMENT OF THE HINNEKENS LINE—

- Tentering frames
- Continuous Boil-off Machines
- Hydraulic Calenders
- 2 and 3 Roll Padders
- Palmer Tenter Units
- Embossing Machines
- Jiggers and Mangles
- Beaming Machines, etc.

Don't Delay—Call The Hinnekens Sales Representative nearest you.

New England Representative PETER JASWELL & SON 37 BRENTWOOD AVE.— PROVIDENCE 8, R. I.

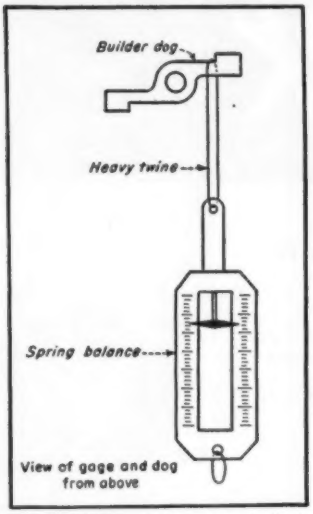
Southern Representative T. E. LUCAS ASSOC., INC. P.O. BOX 1696— CHARLOTTE 1, N. CAROLINA

Mexico and South America MEYER, LYRA & CO., INC. 227-229 FULTON ST. NEW YORK, N. Y.

THE HINNEKENS MACHINE CO., Inc.

207 GODWIN AVENUE PATERSON, NEW JERSEY

Adjust Builder-Dog Tension With Spring Balance



THE TENSION on builder dogs should be accurately set and not just guessed at. Coil spring should be adjusted to give about 21 lb. tension.

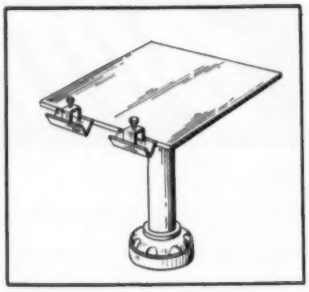
Quick positive motion of the vertical shaft is essential if you are to get a well-built bobbin of roving. The tension of the coil spring must be sufficient to hold the builder dog firmly against the builder jaw. Any delay or hesitation in bringing the first tooth of the gap gear in contact with the top-cone bevel gear will make imperfectly built bobbins.

Too much tension on the builder dog causes excessive wear on the parts of the builder motion. Roving-frame fixers usually make a rough check on the spring tension with a quick push against one arm of the builder dog. The accuracy of this haphazard check depends entirely upon the quick judgment of the fixer.

The exact tension of the dog against the builder jaws can be quickly and accurately checked in this way. A loop of strong twine or flexible wire is slipped over the end of one of the builder-dog arms. The other end of the loop is fastened to the movable slide of a spring balance. The balance is brought on a horizontal level with the dog and is then pulled out until the dog is just pulled away from contact with the builder jaw. The reading in pounds on the balance scale indicates the tension of the builder dog on the builder jaws.

Experience shows that about 21-lb. tension gives quick action of the vertical shaft without excessive wear on the builder parts. The coil spring can be adjusted until the correct tension of 21 lb. is obtained.

Lift Heavy Plates From Studs With This Device



HEAVY PLATES and parts often have to be lifted from machinery to which they are secured by studs. We made this device to make the operation much easier.

The device consists of a steel rod threaded at each end, on which are mounted two blocks which are free to slide along it. Welded on to the two blocks are two wedge-shaped pieces of steel designed to get under the plate to be removed. On the outer end of each block is a threaded nut. When the threaded nuts are screwed-up on the rod, the blocks move in toward the center of the rod, and force the wedges under the edges of the plate to be moved. This action lifts the plate.

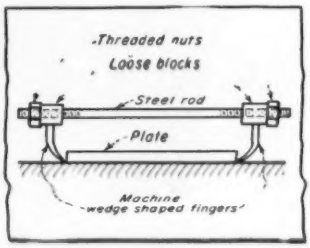
When you have to lift very large plates or parts, it may be necessary to use two of these devices to obtain sufficient leverage. W. E. Warner, Essex, England.

Special Dolly and Rack Designed for Carpet Storage

CARPET ROLLS are put into storage in bed-type roller shelves from a specially designed dolly. This method of handling and storing was designed by Equipment Mfg. Co., Inc., 21550 Hoover Rd., Detroit, Mich., who manufacture the equipment shown.

Sheets of plywood are used as trays for the rolls to lend rigidity and support to the bagged goods. The special dolly truck is spotted at the incoming dock or siding, is loaded with the roll, and is pushed to the storage area. There, the fork-truck operator lifts the loaded dolly to the desired shelf level and pushes the tray into the slot. The dolly and shelf have free-rolling gravity rollers.

Weld Round Shafts With Holder



WE BUILT A WELDING TABLE of ½-in. iron 36 in. square with an old truck wheel as the base. We welded a piece of angle iron on it so that we can weld round shafts. The piece of angle iron is welded across the edge of the table, and 3 in. is cut out of the middle.

We then welded two heavy strap irons over and to the inside of the angle iron and put two set screws in the strap irons. When we want to weld round shafts, we put it in the holder and tighten up on the two set screws.

This procedure holds the shafts so that we get a true weld.

BULL DOG Rub Aprons *Live Longer* on Card Condensers

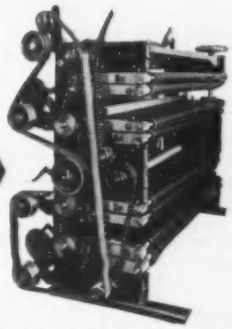
Boss Carders prefer Bull Dog Rub Aprons for reasons which are best expressed *in terms of proven performance on the job.*

Bull Dogs, for instance, permit increased card condenser production up to 25% or more. They increase jack-spool capacity 40-50% by *weight, resulting in lower handling* charges and longer runs. Roving is firmer and denser. End breakage is cut to a minimum.

Noteworthy, too, is *Bull Dog's* patented end construction with *enlarged rivet brads which securely lock* the buttons to the apron end . . . and there are as many buttons as you want, spaced exactly as you want them.

Of vital interest today, however, is the fact that Bull Dog Rub Aprons are made of a specially formulated patented synthetic material which makes Bull Dogs stronger than other types of rub aprons . . . helps them last much longer . . . and gives them a higher coefficient of friction which *permits you to run Bull Dogs up to* 30% slower than other types of rub aprons where only ordinary rubbing is required.

This feature is recognized by boss carders in famous mills as being responsible for longer apron life and lower maintenance costs. Yes, this feature alone — as we are faced today *with tightening manpower and material sources* — is reason enough to *make Bull Dog Rub Aprons your* first choice too!



Bull Dog Rub Aprons used in a well-known card condenser.

Get in touch with your local distributor, *or write direct. Do it today.*

BWH — DEPENDABLE RUGGEDNESS

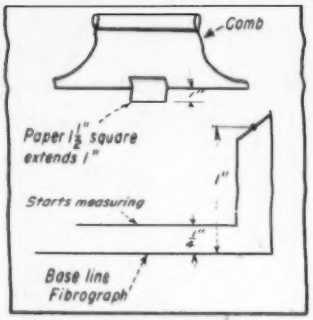
Another Quality Product of

BOSTON WOVEN HOSE & RUBBER COMPANY

Distributors in all Principal Cities

PLANT: CAMBRIDGE, MASS. • P. O. BOX 1071, BOSTON 3, MASS., U. S. A.

Here's How To Check Fibrograph Calibration



A PIECE OF PAPER *extending 1 in. below the comb teeth will give you an accurate Fibrograph calibration. On the chart, the instrument should start measuring ¼ in. above the base line, and the midpoint of the diagonal should measure exactly 1 in. above the base line.*

Most labs use a cotton test sample to check the calibration of Fibrographs. When a cotton test sample is used, there is always a possibility of either breaking fibers or of having variation in the sample itself.

I recommend this method of checking the calibration of the instrument, but I would suggest that making adjustments be left up to the manufacturer. Here are the steps you can use to check the calibration:

1. Turn on the instrument and allow it to warm up for 20 min.
2. Cut two pieces of paper 1½ in. square, and place one piece of paper on each comb, so that the trailing edge is exactly 1 in. below the comb teeth.
3. Line up the Fibrograph in the normal manner, and place the combs on it.
4. Draw a chart just as for cotton, which should look like the one in the drawing. If the instrument is in calibration, it should start measuring ¼ in. above the base line, and the midpoint of the diagonal should measure exactly 1 in. above the baseline.

Best-Kink Award

For February

Each month TEXTILE WORLD *awards $25 to the submitter of the kink which is judged by a panel of over 200 practical mill men as* **the best for that particular month. A new batch of kinks appears each month, and a new group of readers acts as judges each month.**

If you are asked to judge one of these days, be sure to help select the best kink by sending back your answer in time for final **tabulation. Closing date for judging is the last day of the month in which the kink** *appears.*

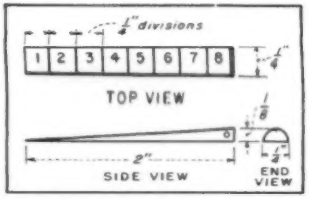
The best kink for February, according to TEXTILE WORLD reader-judges, was:

"False Tape Selvage Makes Weaving Easier"

By Robert E. Spear
Montoursville, Pa.

Mr. Spear is being sent a check for $25 with the compliments of TEXTILE WORLD.

Taper Gauge Checks Cylinder-Bearing Wear



THIS TAPER GAUGE *is made from ⅛-in. flat steel stock, ¼ in. wide and 2 in. long. With it, you can estimate the amount of wear in bearings.*

We made this gauge to measure approximately the amount of wear in the bronze cylinder bearings on cotton cards. We have found many other uses for the gauge around the card room.

The gauge is made from ⅛-in. flat steel stock, ¼-in. wide and 2 in. long. The steel is filed or ground in a straight taper from the full ⅛-in. thickness on one end to a fine point on the other end. The edges are then rounded off so that the contact point will be in the center of the gauge width. We used a scratch awl to mark the gauge lengthwise in ¼-in. divisions.

The pointed end of the gauge is slipped between the top of the cylinder shaft and the top of the bronze bearing. The distance that the gauge can be inserted indicates the amount of wear on the bronze bearing. Wear on the bottom of the bearing permits the cylinder shaft to drop to a lower point and leaves a space between the top of the cylinder shaft and the top of the bearing. We have found that we need to replace the bearings when it is worn about 0.025 in.

Each ¼-in. division from the pointed end is approximately equal to a 0.015-in. increase in thickness of the gauge. The amount of wear of the bearing in inches is obtained by multiplying 0.015 by the number of divisions which go in between the shaft and bronze bearing.

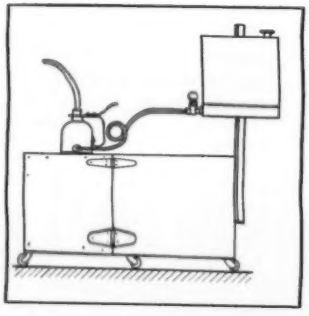
Oil About Twelve Frames Per Hr. With This Spindle Oiler

We have cut our spindle-oiling time almost in half with this spindle oiler, which we made. We have used it for about two years.

The oiler consists of a four-roller truck for the oiler to sit on when he oils the spindles. A 3-gal. oil tank is mounted on an angle-iron frame at one end of the truck. A small valve is fitted into the bottom of this tank, and a rubber tube is fitted to the valve.

The rubber tube runs into the bottom of a pump oil can, which is operated by the oiler. The 3-gal. tank is higher than the spindle rail, and the oil flows through the rubber tube to the pump oil can below it by force of gravity.

The valve at the bottom of the tank cuts off the flow of the oil when the unit is not in use. We find that we are able to oil about twelve frames per hour with this equipment. *W. N. Poe, Talladega, Ala.*



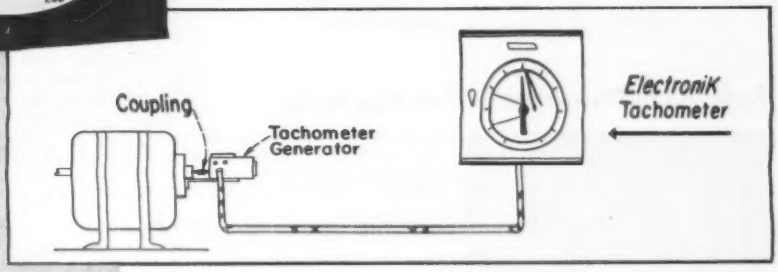
THE OILER *sits on this truck and operates the pump oil can. The 3-gal. oil tank feeds the oil can by gravity flow.*

BROWN INSTRUMENTATION IS KEYED TO THE NEED OF EVERY TEXTILE PROCESS

PRODUCTION ANALYSIS AT A GLANCE

... with the

ElectroniK TACHOMETER RECORDER



THE *ElectroniK* Tachometer provides management with a constant and accurate record of machine operation . . . a visual guide for synchronizing elements of any range so that rates of flow between the elements can be established and maintained. It is an automatic recorder of facts for operation study wherever machine speed is a factor . . . affording production analysis at a glance.

The outstanding advantages of the *ElectroniK* Tachometer include: *flexibility* that permits speed measurements in rpm, ypm, fpm or other lineal/time relations; *rangeability* that makes it available for shaft speeds from 100 to 7500 rpm; and generator *accuracy* rated at one-fifth of 1% or better.

For recording, indicating and controlling speed . . . for multi-machine synchronization . . . for machine and product protection in bleach ranges, dyeing ranges, tenters, slashers, spoolers, etc. . . . your best bet is the *ElectroniK* Tachometer. Call in your local Honeywell engineer for a discussion of your operations today . . . he is as near as your phone.

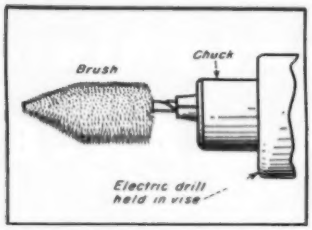
MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, 4509 Wayne Ave., Phila. 44, Pa. Offices in more than 80 principal cities of the United States, Canada and throughout the world.

● *ElectroniK Tachometer and generator (circled) applied to a continuous bleach range washer.*

MINNEAPOLIS **Honeywell**

BROWN INSTRUMENTS

Brush in Electric Drill Cleans Insides of Bobbins



A STIFF FIBER BRUSH operated by an electric drill will remove all waste from the inside of roving bobbins. The body of the drill can be held firmly in a vise or a small stand made for this purpose.

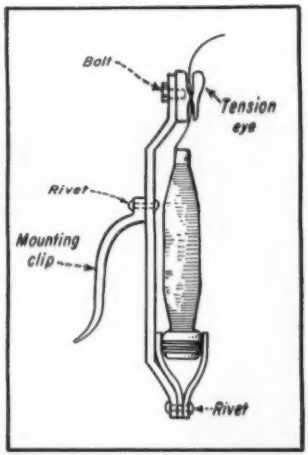
A stiff fiber brush operated by an electric drill will do a good job of removing all waste and hard materials from the inside of roving bobbins. We use twisted-wire-type brushes which have a tuft of fiber extending out from the wire core about 1 in. on each side. We cut off the wire loop handle of the brush, so that we could insert the brush into the chuck of a small electric drill.

The body of the drill can be held firmly in a vise or a small stand made for this purpose. The end of the brush should extend out from the chuck about 7 in.

Here's how we use the brush. We push the bobbin up on the brush as far as it will go from each end. The entire inside of the bobbin will be cleaned thoroughly, and all attached waste will be loosened and fall out from the end of the bobbin.

We used to use compressed air nozzles to force the waste from the inside of the bobbins. This method is effective in blowing out loose waste; but it will not remove the hard caked-on waste, which forms in the bobbins. It is important that this waste be removed, because it often collects on the tops of bobbins of roving and eventually finds its way into the work.

Bobbin Holder Prevents Loose Ends in Fabric



WE STOPPED THE LOOSE ENDS in our fabrics with this bobbin holder. The bobbin is held by an old bobbin clip, and a tension eye from a shuttle keeps the end under tension. The bobbin clip and tension eye are mounted on a piece of flat iron stock, as you can see in the diagram. We put a clip on the back side of the flat iron so that we can clip the holder to the loom arch. Harvey E. Boucher, Lawrence, Mass.

Fork Trucks Dispatched By Two-Way Radio

TWO-WAY RADIO controls the movement of fork-lift trucks at the Johnson & Johnson shipping center, Metuchen, N. J. This driver is shown getting dispatch instructions from a central dispatching office.

Two-way radio has been introduced recently as an aid to mechanized materials handling. Johnson & Johnson Co. equipped its fleet of seven Skylift electric fork-lift trucks with two-way Motorola radio sets. The set is placed to the right of the driver's seat, and enables the driver to get instructions from the dispatcher without leaving the seat of his truck. The central dispatch headquarters has a master short-wave station, with all trucks linked to it on the same frequency. The dispatcher has a plant-layout chart and stock-record location cards.

The dispatcher is able to shift trucks and goods without deadhead loads, idle time, waiting for a pallet load, and general confusion. This system eliminates much paper work because each driver is given verbal orders instead of written instructions. The driver can be told exactly where to take a load, and he can be given instructions quickly on where to pick up his next load.

We Fight Twister Fires With Homemade Sprayers

Lint and oil make a fire hazard on most twisters, particularly when coarse yarns are run.

If fire occurs while a twister is running, it will be fanned from one end of the twister to the other in a matter of seconds. Because of the oil, lint, and tapes under the frame, putting out the fire before it has done much damage is almost impossible.

We decreased fire damage on our twisters by installing water lines just below the roller beams, above the cylinders.

At each twister, the water pipe comes through the floor at the head end of the frame. It rises to a few inches above the cylinder and then runs above the cylinder to the motor end of the frame. Small holes are drilled in the pipe under the twister.

In the vertical section at the head end is a hand valve. The moment fire occurs under the twister, someone goes to the head end of the frame and turns on the water. The water sprays out through the drilled holes and puts out the fire before much damage occurs.

Use Automatic Timer To Warm Up Equipment

I had heard of other mill labs using an automatic clock timer to turn on equipment before the lab opens in the morning, so that it is warmed up when you come in to do your work. I tried it, and it works very successfully.

We use a standard clock time switch to turn on our Uster tester 2 hours before the lab opens; the Fibrograph, 30 min.; conditioning ovens, 30 min.; and any other equipment that we want warmed up and ready to go when we come into work.

This procedure saves a lot of time, as we don't have to wait for equipment to warm up before we start. *Percy W. Woodruff, Jr., Durham, N. C.*

A #@$! of a time for this to happen!

(And time to look for a better way to *control* preventive maintenance)

Too bad the maintenance men didn't get to this machine a few days sooner, when it would have been easy to *prevent* the breakdown.

Positive control of preventive maintenance—insuring the right servicing to the right machine at the right time—is simple when you have a Kardex *Visible* System. Experience and performance are combined to set up a pre-arranged, tested inspection schedule. Kardex colored signals indicate—*automatically*—those items due for inspection. A "Floating Inspector's" record is withdrawn from the Kardex pocket, filled out with specific instruction for the check-up to be performed, and routed to your maintenance men as a work order and report sheet.

When the maintenance job is done, the maintenance man checks off what he did and the card is returned to its place, *automatically* signaling job completion. Then, the Kardex signals are advanced to the next date specified. Details are posted on the maintenance card from the job card, providing a continuing, *permanent* record of maintenance activity.

The quick results: needless, costly "down-time" is eliminated. Operating efficiency goes up. Manufacturing costs go down. All are accomplished with *less* clerical help and a minimum of time-wasting paperwork, thanks to the "floating" maintenance order!

Send today for free folder, *Simplified Preventive Maintenance Control.* It shows how to get maximum maintenance economy . . . how to hold inventories at a safe, healthy level with Kardex *simplified* Property Records.

FREE

Phone us locally or write today for illustrated booklet (KD-449): Management Controls Reference Library, Room 1027, 315 Fourth Ave., New York 10, N. Y.

Remington Rand
THE FIRST NAME IN BUSINESS SYSTEMS

For more information, write direct or use Reader Service post card.

"Take Off THE BRAKES"

SPINDLES SPIN SMOOTHER AT HIGHER SPEEDS

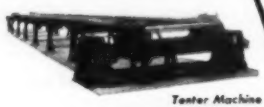
with

SKF
roller bearings

SKF-equipped spindles spin faster, spin better, spin at lower cost—because the friction that gobbles power is kept to the minimum by bearings specially designed and made for the purpose.

SKF Roller Bearings have been contributing to higher spindle efficiency, lower operating costs for more than 25 years. On an average, the use of SKF Bearings reduces power consumption by 15%, permits the use of smaller motors and starting equipment—contributes more uniform twist and greater yarn breaking strength. Ends down are less—oil throwing is eliminated. 7224

Worsted Card



Tenter Machine

One Process Picker

SKF Bearings are making major contributions to the greater efficiency, more economical operation of all types and sizes of textile machinery.

SKF

SKF INDUSTRIES, INC., Phila. 32, Pa.
manufacturers of
SKF *and* HESS-BRIGHT *bearings*

8 REASONS WHY SKF IS PREFERRED BY ALL INDUSTRY

integrity
craftsmanship
metallurgy
tolerance control
surface finish
product uniformity
engineering service
field service

TEXTILE WORLD'S *Guide* TO EXHIBITORS

40th KNITTING ARTS EXHIBITION

Sponsored by National Association of Hosiery Manufacturers

April 30 to May 4, 1951 -:- Atlantic City, N. J.

Contents . . .

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Advertisers' Index 163
Floor Plan of Exhibit Area 164-165
Product Index 166
Alphabetical Index of Exhibitors 168

TURBO FEATURES

"Gentle as a Lamb"

at the Knitting Arts Exhibition

★ TURBO FINISH BOARDER

the quick-dry for static-free stockings. Production is 250 dozen pairs in 8 hours with two boarders. And it's gentle as a lamb with your finest nylons.

★ TURBO AD-48

for preboarding, finish boarding or a combination of both. Circulating hot air keeps temperatures steady during boarding. Production is 120 to 130 dozen pairs per 8-hour day. And it's gentle as a lamb with your finest nylons.

★ TURBO CRIMPER

crimps nylon or other synthetic fibres at the rate of 320 feet per minute. It makes crimping a uniform, high-production operation . . . And it's gentle as a lamb in its smooth, continuous operation.

TURBO MACHINE COMPANY : : LANSDALE, PA.
Southern Representative: F. W. Warrington Co., Charlotte, N.C.

Convention Hall, Atlantic City, April 30—May 4

TURBO

THE 40TH KNITTING ARTS EXHIBITION, being held in the Atlantic City Auditorium, Atlantic City, N. J., from Monday through Friday, April 30 to May 4, 1951, promises to be the largest in the history of the knitting exhibitions which are sponsored by the National Association of Hosiery Manufacturers every two years.

To date, over 200 exhibitors, including knitting- and finishing-machinery manufacturers, distributors, and suppliers to the knitting trade, have been assigned space at the show. An innovation this year was the addition of 35 exhibition spaces on the stage which were provided at the turn of the year to accommodate late entries, when it was found that the main floor of the auditorium could not comfortably provide space for all the exhibitors.

TEXTILE WORLD is happy for the opportunity to present this section as a Guide to Exhibitors for this latest and largest knitting show. We hope not only that you will find it useful in locating the exhibits in which you are especially interested, but also that it will bring to your attention new equipment, supplies, and ideas which will prove valuable in keeping production up and expenses down in your mill.

Use the general type-of-product breakdown section for familiarizing yourself with exhibitors of particular types of mill equipment. The floor plan of the exhibition area will show you the locations of booths which you want to visit and will help you use your time at the show to best advantage by plotting a specific route through the exhibits.

Copies of this Guide to Exhibitors will be on hand at TEXTILE WORLD'S booth (Nos. 85, 92) for your convenience and we cordially invite you to stop by and pick one up for use at the show.

Visitors to the Show!

▶ **TEXTILE WORLD particularly invites you to make our booth (Nos. 85, 92) your exhibition headquarters. Pick up one of our show directories and literature fileholders for your personal use. We look forward to seeing our old friends in the knitting trade and to making new ones during the week of the show. Come up and speak to us in our booth; we want to meet you and have a chance to exchange ideas with you.**

▶ **TEXTILE WORLD representatives at the booth during the week will include Edwin D. Fowle, publisher; P. M. Thomas, editor-in-chief; William Buxman, manager; and W. A. Thomason, W. B. Dall, Richard C. Scott, Jean Haws, Ralph Chisholm, Arch W. Fisher, John C. White, Jr., and H. C. Harvey.**

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Aberfoyle Mfg. Co.	197
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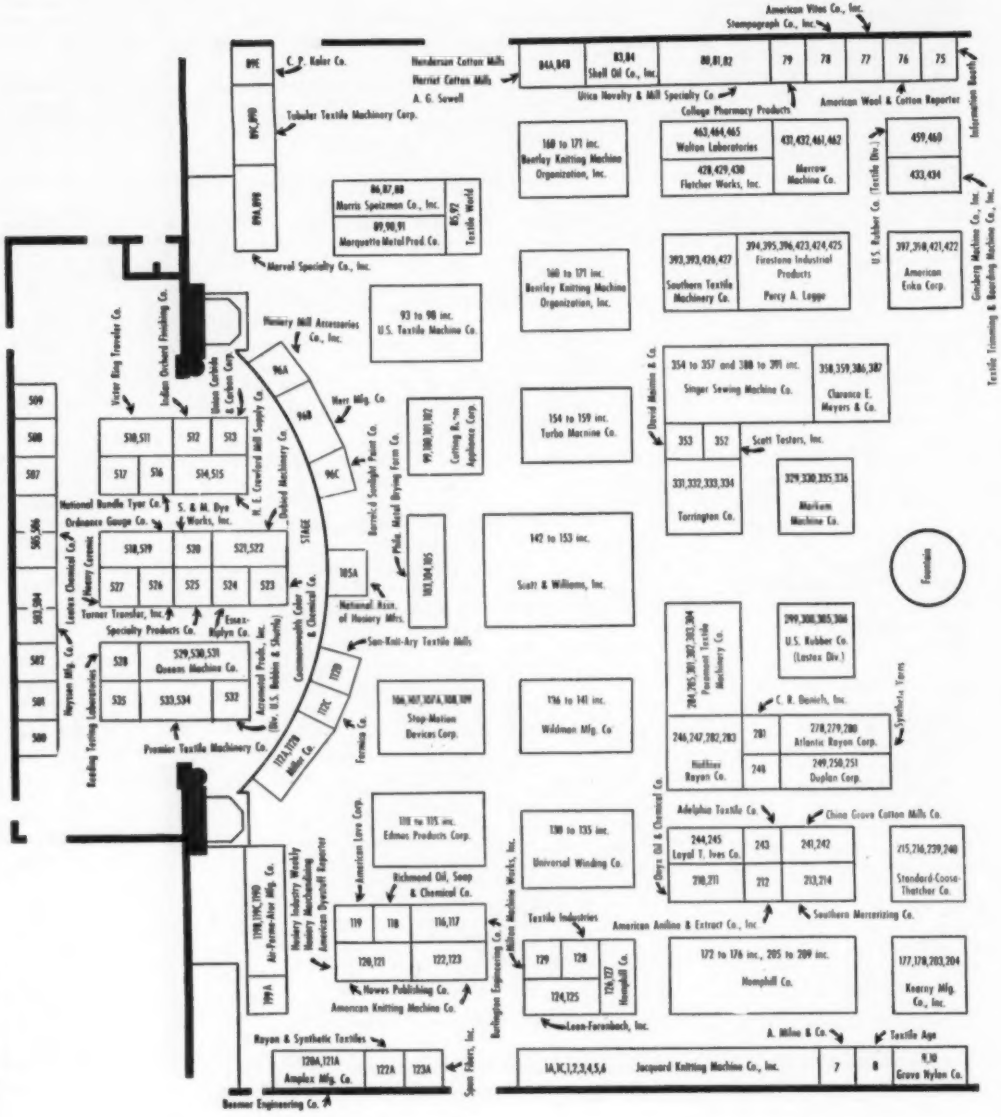
Wildman Mfg. Co.	202

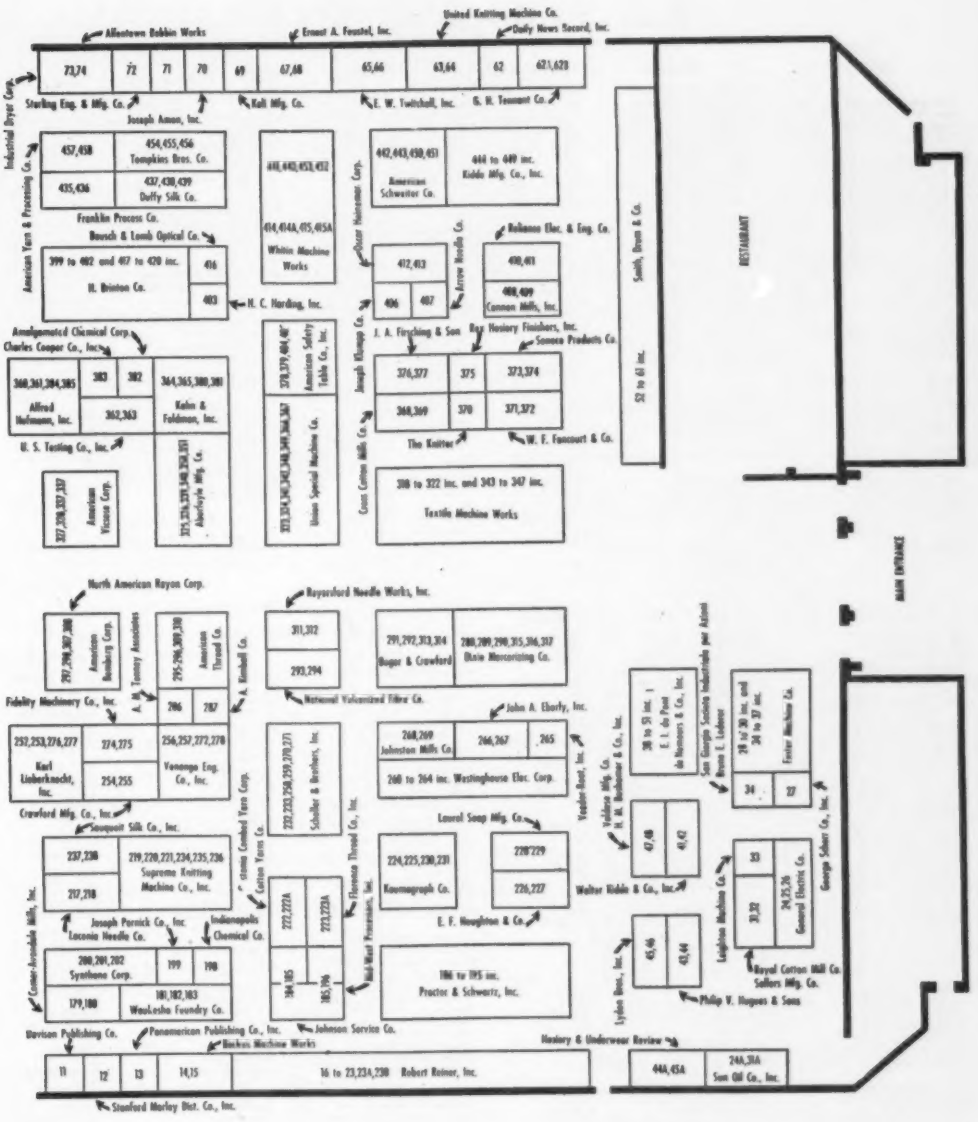
* For advertisements of other exhibitors, see the regular *Index to Advertisers* published at the back of the complete issue.

Hours of the Show

Monday	3 P.M. to 8 P.M.
Tuesday	12 Noon to 10 P.M.
Wednesday	10 A.M. to 6 P.M.
Thursday	10 A.M. to 6 P.M.
Friday	10 A.M. to 1 P.M.



Floor Plan of Exhibit Area



40th Knitting Arts Exhibition

Index of Exhibitors by Products

1. Knitting-Mill Machinery

EXHIBITOR	PRODUCT	BOOTH NO.
American Knitting Machine Co.	Flat-bed machines	122,123
American Schweiter Co.	Cone winder	442,443,460,461
Bentley Knitting Machine Org., Inc.	Knitting machines	160 to 171
H. Brinton Co.	Knitting machines	399 to 402,417 to 420
Charles Cooper Co.	Knitting machines	383
Dubied Machinery Co.	Knitting machines	521,522
Edmos Products Corp.	Knitting machines	110 to 115
Fidelity Machine Co., Inc.	Knitting machines	274,276
Fletcher Works, Inc.	Twisters	428 to 430
Foster Machine Co.	Winders	29 to 30, 35 to 37
Hemphill Co.	Knitting machines	172 to 176,206 to 209,126,127
Jacquard Knitting Machine Co., Inc.	Knitting machines	1A,1 to 6
Kidde Mfg. Co., Inc.	Tricot-knitting machines	444 to 449
Bruno E. Lederer	Knitting machines	34
Leighton Machine Co.	Knitting machines	33
Karl Lieberknecht, Inc.	Full-fashioned knitting machines	252,253,276,277
Ordnance Gauge Co.	Knitting machines	518,519
Premier Textile Machinery Co.	Warp-knitting machines	533,534
Queens Machine Co.	Knitting machines	529 to 531
Robert Reiner, Inc.	Knitting machines, warper, creels	16 to 23, 23A,23B
San Giorgio Societa Industriale per Azioni	Knitting machines	34
Scott & Williams, Inc.	Knitting machines	142 to 153
Morris Spelzman Co., Inc.	Knitting machines	86 to 88
Supreme Knitting Machine Co.	Knitting machines	219 to 221,234 to 236
Textile Machine Works	Full-fashioned knitting machines	318 to 322,343 to 347
Tompkins Bros. Co.	Knitting machines	484 to 486
U. S. Textile Machine Co.	Throwing machines	83 to 98
Universal Winding Co.	Winders and twisters	120 to 135
Whitin Machine Works	Tricot-knitting machines	414,414A,415, 415A,440,441, 452,453
Wildman Mfg. Co.	Circular and full-fashioned knitting machines	136 to 141

2. Dyeing, Finishing, and Packaging Machinery and Equipment

EXHIBITOR	PRODUCT	BOOTH NO.
Burlington Engineering Co., Inc.	Dyeing machinery	116,117
Fletcher Works, Inc.	Extractor	429 to 430
Hayssen Mfg. Co.	Hosiery-wrapping machines	503,504
Hosiery Mill Accessories Co., Inc.	Hosiery-packaging machine	98A
Kaumagraph Co.	Dry transfers and labels	224,225,230,231
A. Kimball Co.	Labeling and ticketing machines	207
Markem Machine Co.	Welt, box, and label printing machines	329,330,335,336
National Bundle Tyer Co.	Bundle-tying machines	516
Paramount Textile Machinery Co.	Hosiery-finishing equipment	3M,350,301 to 304
Joseph Pasnick Co., Inc.	Knit-goods finishing machines	109
Philadelphia Metal Drying Form Co.	Drying forms and accessories	103 to 105
Proctor & Schwartz, Inc.	Boarding and preboarding equipment, nylon-setting equipment	106 to 115
San-KNIT-Ary Textile Mills	Dye nets	112D
Smith, Drum & Co.	Yarn- and hosiery-dyeing and finishing equipment	52 to 61
Stampagraph Co., Inc.	Transfers, seals, and labels	78
Textile Trimming & Boarding Machine Co., Inc.	Finishing equipment	433,434
Tubular Textile Machinery Corp.	Knit-goods finishing equipment	89C,89D
Turbo Machine Co.	Boarders, preboarders, and crimper	154 to 156
E. W. Twitchell, Inc.	Hosiery packages	88,88
Verango Engineering Co., Inc.	Dyeing machinery	256,257,272,273

3. Knitting-Mill Equipment and Supplies

EXHIBITOR	PRODUCT	BOOTH NO.
Acrometal Products, Inc.	Spools and bobbins	532
Allentown Bobbin Works	Spools and bobbins	72
American Knitting Machine Co.	Knitting-machine accessories	122,123
American Lava Corp.	Thread guides	119
American Safety Table Co., Inc.	Sewing tables and motors	378,379,404,405
American Viline Co., Inc.	Hosiery-mending machine	77
Joseph Amon, Inc.	Hosiery-mill equipment and accessories	70
Arrow Needle Co.	Knitting needles	407
Backus Machine Works	Conditioners and counters	14,15
Crawford Mfg. Co., Inc.	Electric stop motions	254,255
H. E. Crawford Mill Supply Co.	Mill supplies and machine parts	514,515
Cutting Room Appliance Corp.	Cloth-laying machines, tables, trimmer	99 to 102
John A. Eberly, Inc.	Mill supplies	266,267
Ernest A. Foustel, Inc.	Hosiery-machine parts	87,88
J. A. Firsching & Son	Laying-up machine	376,377
Formica Co.	Laminated plastics, bobbins	112C
General Electric Co.	Knitting-machine drives	24 to 26
Ginsberg Machine Co., Inc.	Trimming equipment, finishing and packaging tables and equipment	433,434
Heavy Industrial Ceramic Corp.	Thread guides	527
Herr Mfg. Co.	Flyers, conical rings	98B
Alfred Hofmann, Inc.	Machine attachments and needles	380,381,384,385
Hosiery Mill Accessories Co., Inc.	Machine parts	98A

3. Knitting-Mill Equipment and Supplies (Continued)

EXHIBITOR	PRODUCT	BOOTH NO.
Industrial Dryer Corp.	Hosiery conditioners	73,74
Loyal T. Ives Co.	Machine parts and needles	244,245
C. P. Kaler Co.	Dye nets, wraps, carton liners	89E
Kearny Mfg. Co., Inc.	Conditioners	177,178,203,204
Walter Kidde Co., Inc.	Yarn tensions	41,42
Laconia Needle Co.	Knitting needles	217,218
Lydon Bros., Inc.	Conditioning and presetting equipment	45,46
David Maimin & Co.	Cutting, pressing, stitching, and trimming equipment	353
Marquette Metal Products Co.	Roller-bearing spindles	89 to 91
Stamford Marley Distributing Co., Inc.	Manding machines and needles	12
Marvel Specialty Co., Inc.	Hosiery-repair machines	89A,89B
Morrow Machine Co.	Overseaming, overedging, and hemming machines	431,432,461,462
Milton Machine Works, Inc.	Tricot beams	129
National Vulcanized Fibre Co.	Vulcanized-fiber and laminated-plastic items	293,294
Royarsford Needle Works, Inc.	Knitting needles	311,312
Singer Sewing Machine Co.	Sewing machines	354 to 357,388 to 391
Sonoco Products Co.	Cones, tubes, cores, spools, and paper specialties	373,374
Southern Textile Machinery Co.	Looping machines and accessories	392,393,426,427
Sterling Engineering & Mfg. Co.	Bobbin and cone boards	71
Stop-Motion Devices Corp.	Stop motions and fabric-defect detectors	106 to 106,107A
Synthane Corp.	Laminated plastics	290 to 292
Torrington Co.	Knitting needles	331 to 334
Union Special Machine Co.	Sewing machines	323,324,341,342, 348,349,366,367
United Knitting Machine Co.	Full-fashioned machine parts	63, 64
Utica Novelty & Mill Specialty Co.	Laying-up, cutting, and winding machines	80 to 82
Victor Ring Traveler Co.	Travelers	510,511

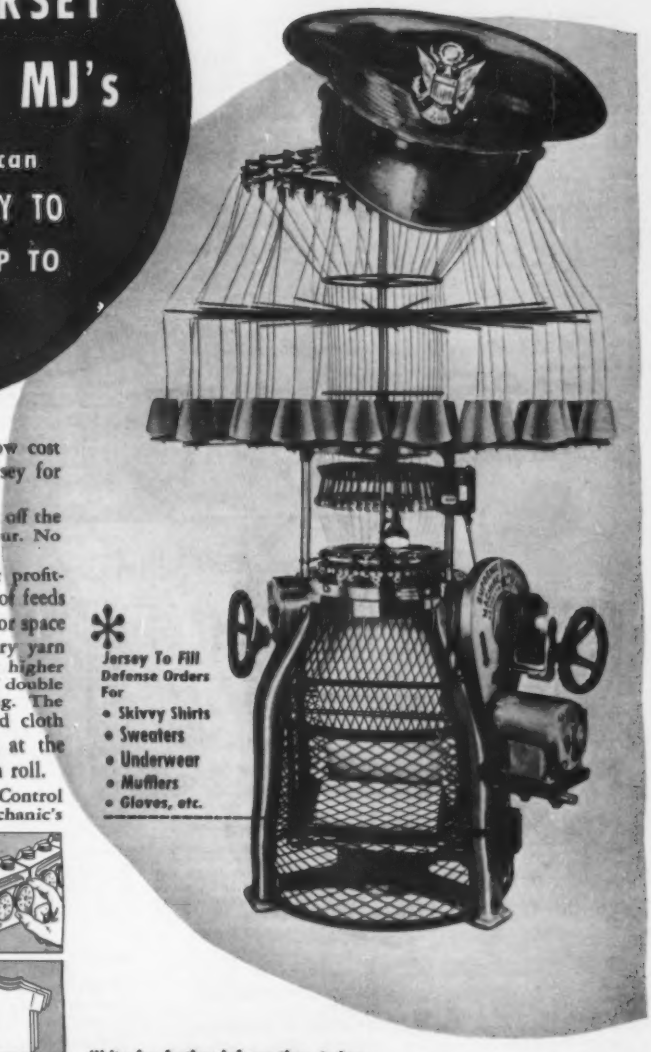
4. Knitting Yarn and Thread, Commission Finishers

EXHIBITOR	PRODUCT	BOOTH NO.
Aberfoyle Mfg. Co.	Cotton and nylon yarns	325,326,339,340, 350,351
Adelphia Textile Co.	Dyed Yarns	243
American Bemberg Corp.	Rayon yarns	237,298,307,308
American Enka Corp.	Rayon yarns	397,398,421,422
American Thread Co.	Yarns and threads	295,296,309,310
American Viscose Corp.	Rayon yarns and threads	327,328,337,338
American Yarn & Processing Co.	Knitting yarns	457,458
Atlantic Rayon Corp.	Knitting yarns	278 to 280
Boger & Crawford	Knitting yarns	291,292,313,314
Cannon Mills, Inc.	Knitting yarns	408,409
China Grove Cotton Mills Co.	Knitting yarns	241,242
Comer-Avondale Mills, Inc.	Knitting yarns	179,180
Cotton Yarns Co.	Yarns and thread	222,222A
Cross Cotton Mills Co.	Cotton yarns	388,389
Dixie Mercerizing Co.	Knitting yarns	288 to 290,315 to 317
Duffy Silk Co.	Knitting yarns	437 to 439
Dupian Corp.	Thrown yarns	249 to 251
E. I. du Pont de Nemours & Co., Inc.	Synthetic yarns	38 to 40,49 to 51
Firestone Industrial Products Co.	Yarns and threads	394 to 396,423 to 425
Florence Thread Co., Inc.	Knitting yarns	223,223A
Franklin Process Co.	Dyed yarns	435,436
Gastonia Combed Yarn Corp.	Knitting yarns	222,222A
Grove Nylon Co.	Thrown yarns	9,10
Harriet Cotton Mills	Knitting yarns	84A,84B
Oscar Heineman Corp.	Knitting yarns	412,413
Henderson Cotton Mills	Knitting yarns	84A,84B
Hoffner Rayon Co.	Dyed yarns	246,247,292,293
Indian Orchard Finishing Co.	Knit-goods finishes	512
Johnston Mills Co.	Knitting yarns	286,289
Joseph Klumpp Co.	Knitting yarns	406
Percy A. Legge	Yarns and threads	394 to 396, 423 to 425
Leon-Farenbach, Inc.	Knitting yarns	124,125
Mid-West Processors, Inc.	Dyed yarns	185,186
North American Rayon Corp.	Rayon yarns	297,298,307,308
Royal Cotton Mill Co.	Knitting yarns	31, 32
S & M Dye Works, Inc.	Commission finishers	520
Sauquoit Silk Co., Inc.	Thrown yarns	237,238
Safier Mfg. Co.	Knitting yarns	31,32
A. G. Sowell	Knitting yarns	84A,84B
Southern Mercerizing Co.	Knitting yarns	213,214
Spun Fibers, Inc.	Knitting yarns	123A
Standard-Coosa-Thatcher Co.	Knitting yarns	215,216,239,240
Synthetic Yarns	Knitting yarns	278 to 280
A. M. Tenney Associates	Knitting yarns	286
Union Carbide & Carbon Corp.	Dynel knitting yarn	513
U. S. Rubber Co., Lastex Div.	Elastic yarns	299,300,305,306
U. S. Rubber Co., Textile Div.	Cotton yarns	408,409
Valdese Mfg. Co.	Knitting yarns	47,48

(Continued on page 168)

MOBILIZE TO KNIT D.O. JERSEY* with Supreme MJ's

With model MJ's you can KNIT BODY SIZE JERSEY TO GOVERNMENT SPECS UP TO 100 YDS. PER HOUR



* Jersey To Fill Defense Orders For
- Skivvy Shirts
- Sweaters
- Underwear
- Mufflers
- Gloves, etc.

Supreme's MJ is the high speed, low cost way to turn out bodysized G.I. jersey for Defense Orders.

The body size ordered comes right off the machine at up to 100 yards per hour. No slitting or sewing of side seams.

The Model MJ is engineered for profitable production. The large number of feeds per diameter save labor, conserve floor space and increase your output. Stationary yarn stand and revolving cylinder allow higher machine speeds . . . permit "pig-tail" double tie ups for more non-stop knitting. The interwinding "floating" take-up and cloth roll-up give you uniform tension at the knitting points and a uniform cloth roll.

The infallible Micromatic Stitch Control on the Model MJ saves your mechanic's time. The length of each stitch can be precisely adjusted in a matter of seconds without using tools and without any fuss.

BODY SIZE MJ MACHINES

Dia.	Feeds	Dia.	Feeds	Dia.	Feeds
9"	28	12"	38	16"	50
10"	32	13"	40	17"	54
11"	34	14"	44	18"	56
		15"	48		

Other MJ sizes available up to 30" diam. with 64 and 96 feeds.

Write for further information, today.

SUPREME
KNITTING MACHINE CO. INC.

SX-141

Index of Exhibitors by Products (Continued)

EXHIBITOR	PRODUCT	BOOTH NO.
5. Dyes, Chemicals, Finishes		
Amalgamated Chemical Corp.	Dyeing and finishing chemicals.	382
American Aniline & Extract Co., Inc.	Processing compounds	212
College Pharmacy Products	Metal-cleaning compound	79
Commonwealth Color & Chemical Co.	Chemical specialties	523
W. F. Fancourt & Co.	Finishing agents	371,372
H. C. Harding, Inc.	Knitting oils and cleaning fluids	403
E. F. Houghton & Co.	Chemical specialties	226,227
Indianapolis Chemical Co., Inc.	Hosiery-knitting chemicals	186
Kali Mfg. Co.	Chemical specialties	69
Kearny Mfg. Co., Inc.	Finishing chemicals	177,178,203,204
Laurel Soap Mfg. Co.	Soaps, oils, finishes	228,229
Leatex Chemical Co.	Chemical specialties	505,506
Onyx Oil & Chemical Co.	Chemical specialties	210, 211
Reading Testing Laboratories	Chemical specialties	520
Rex Hosiery Finishers, Inc.	Hosiery finishes	375
Richmond Oil, Soap & Chemical Co.	Chemical specialties	118
Scheller Bros., Inc.	Chemical specialties	232,233,256,259, 270, 271
6. Regulating, Controlling, Measuring, and Testing Equipment		
Bausch & Lomb Optical Co.	Optical instruments	418
Johnson Service Co.	Humidity controllers	184,185
Kearny Mfg. Co., Inc.	Moisture testers	177,178,203,204
Scott Testers, Inc.	Yarn testers	352
United States Testing Co.	Yarn testers	362,363
Veeder-Root, Inc.	Revolution and yardage counters	265
7. Air-Conditioning, Heating, and Ventilating Equipment		
Air-Perme-Ator	Humidifying equipment	119B,119C,119D
Walton Laboratories	Humidifiers	463 to 465
8. Materials-Handling Equipment		
American Safety Table Co., Inc.	Knit-good conveyor	378,379,404,405
C. H. Daniels, Inc.	Bags, baskets, trucks, trays	281
National Vulcanized Fibre Co.	Vulcanized fiber-handling equipment	293,294
Sterling Engineering & Mfg. Co.	Trucks and other yarn-handling equipment	71
9. General Industrial Supplies and Equipment		
Amplex Mfg. Co.	Bearings and metal-powder products	120A, 121A
Barreled Sunlight Paint Co.	Paint products	66C
Beamer Engineering Co.	Bearings and metal-powder products	120A,121A
Philip V. Hugues & Sons	Industrial vacuum cleaners	43,44
The Miller Co.	Lighting fixtures	112A,112B
A. Milne & Co.	Steels	7
Reliance Electric & Engineering Co.	Electric motors and drives	410,411
Shell Oil Co., Inc.	Lubricants	83,84
Sun Oil Co.	Lubricants	244,31A
G. H. Tennant Co.	Floor-maintenance equipment	62A,62B
Torrington Co.	Needle and roller bearings	331 to 334
Waukesha Foundry Co.	Castings, pump, seals	181 to 183
Westinghouse Electric Corp.	Electrical drives and controls	260 to 264
10. Publications and Professional Services		
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American Wool & Cotton Reporter	Textile publication	76
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Davison Publishing Co.	Textile directory	11
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Hosiery Merchandising	Textile publication	120,121
Hosiery & Underwear Review	Textile publication	44A,45A
Howes Publishing Co.	Textile publications	120,121
The Knitter	Textile publication	370
National Assn. of Hosiery Mfrs.	Trade association	105A
Panamerican Publishing Co., Inc.	Spanish-language publications	13
Rayon & Synthetic Textiles	Textile publication	122A
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Turner Transfer, Inc.	Machinery-moving services	329
United States Testing Co.	Testing and research facilities	362,363

Alphabetical Index of Exhibitors

ABERFOYLE MFG. CO. (325, 326, 339, 340 350, 351)
123 S. Broad St., Philadelphia, Pa.
Features fabrics and garments of dyed and chemically treated cotton yarns, including Durene; Fiberfoyle; Day-Glo and Coldfire fluorescent colors; and Nyfoyle, a new high-abrasion nylon-and-cotton yarn.
Representatives at booth:
J. S. Kenrick
W. Brown
H. M. Detwiler
William Galey
David Gott
J. A. Holt
A. Huston, Jr.
H. Gordon Kenna
F. G. Miller
R. F. Morris
J. J. Neil
W. G. Vetterlein

ACROMETAL PRODUCTS, INC. (DIV. OF U. S. BOBBIN & SHUTTLE CO.) (532)
616 Fifth St., Minneapolis 1, Minn.
Features aluminum-alloy spools and bobbins, with nylon bearings and rims, constructed by metal-injection process. Newly developed take-up and headless bobbins and a new vertical twister will also be shown.
Representatives at booth:
Harold J. Winje
Harrison R. Lane

ADELPHIA TEXTILE CO., INC. (243)
1815 W. Bristol St., Philadelphia, Pa.
Features resist-dyed nylon, silk, rayon, acetate and mercerized cotton yarn for decorative purposes in hosiery and for seaming and looping.
Representatives at booth:
Edward B. Steinmetz
Clarence Evand
Edward C. Steinmetz
James T. Hunter

AINSLIE KNITTING MACHINE CO., INC. (535)
740 Grand St., Brooklyn, N. Y.

AIR-PERME-ATOR MFG. CO. (119B, 119C, 119D)
300 Preakness Ave., Paterson, N. J.
Features model showing the basic feature of molecular suspension in Air-Perme-Ator system for humidification and cooling; conditioning cabinet showing possible variation between temperature and humidity; new application of system on spinning frames.
Representatives at booth:
John Kohut, Sr.
H. E. Kresse
Edward Kohut
Richard G. Burr

ALLENTOWN BOBBIN WORKS, INC. (72)
417 N. 14th St., Allentown, Pa.
Features bobbins and spools for processing fine-denier yarns, such as silk, rayon, nylon, and blends.
Representatives at booth:
Henry W. Mack
Harold S. Barnes

AMALGAMATED CHEMICAL CORP. (382)
Rorer & Ontario Sts., Philadelphia 34, Pa.
Features chemicals for textile dying and finishing.
Representatives at booth:
Harold B. Dehner
Robert A. Bruce
John M. Jester
Hillary Robinette, Jr.
Charles E. Seel
George C. Harkins

AMERICAN ANILINE & EXTRACT CO., INC. (212)
Venango & F Sts., Philadelphia 34, Pa.
Features processing compounds, such as sizes, softeners, and penetrants, including newly developed Orthocryl.
Representatives at booth:
W. J. Duddy
R. D. McCarty
M. H. Silberman
Lynn Kipax

AMERICAN BEMBERG CORP. (297, 298, 307, 308)
261 Fifth Ave., New York, N. Y.
Features Bemberg and Narco knitting yarns.
Representatives at booth:
J. C. Fortune
H. G. Spitzer
N. Polonsky
R. Devine
M. Phinney
J. Lewy
W. Forsthoff
J. B. Dunlop
F. Love
G. Monk
J. Furr
V. Beg
J. Ashley
E. Benzing

AMERICAN DYESTUFF REPORTER (120, 121)
44 E. 32rd St., New York, N. Y.
Features a textile publication.

AMERICAN ENKA CORP. (397, 398, 421, 422)
206 Madison Ave., New York, N. Y.
Reception booth.
Representatives at booth:
E. W. Martin
C. D. Smith
J. A. VanLaer
M. B. Carr
C. L. Hayden

AMERICAN KNITTING MACHINE CO. (122, 123)
118 Boerum St., Brooklyn 6, N. Y.
Features knitting machines and accessories, including Speedy Slitter; cams and parts for domestic and foreign flat machines; and jacks, sinkers, and needles for circular and flat-link machines. A new Twin-Head flat-border machine will also be shown.
Representatives at booth:
George Zielinski
Michel E. Zielinski

AMERICAN LAVA CORP. (119)
Chattanooga, Tenn.
Features standard-type and custom-made AlSiMag thread guides for knitting machinery of all types. New special finishes for minimum tension and narrow-slotted guides will also be shown.
Representatives at booth:
John Kruesi

DOUBLE DISC MODEL—one type for 10 to 140 grams; one for 100 to 300 grams

A Kidde Compensator

CAN SOLVE YOUR TENSION PROBLEMS

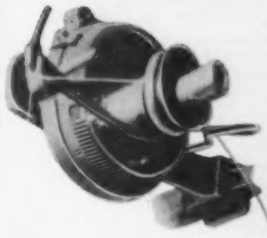
Kidde engineers, specialists in textile tensions, have designed three compensators to eliminate the variables in yarn tensioning.

The Double Disc Model maintains constant tension at high speeds hitherto thought impossible. It passes knots without yarn breakage and is excellent for tender, high twist yarns.

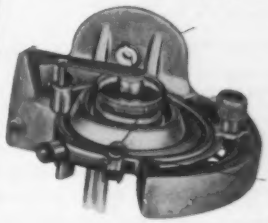
The Standard Model is for average speeds and tensions. It is useful in quilling as well as in twisting and doubling, particularly with cottons and rayons, warping of rubber yarns, winding of narrow fabric bobbins.

The Warp Model is inexpensive enough to control every end economically. It is small, easily installed and avoids uneven tensions at the warp beam which may result in excessive spoilage and, in extreme cases, beam buckling.

For information on any of these Kidde compensators, fill in and send the coupon below.



STANDARD MODEL—6 to 120 grams



WARP MODEL—up to 20 grams

Walter Kidde & Company, Inc.
491 Main Street, Belleville 9, N. J.

Kidde

Walter Kidde & Company, Inc.
491 Main Street, Belleville 9, N. J.

Gentlemen:

Please send me additional information on the Kidde Compensators.

Name_____

Company_____

Address_____

City_____ State_____

G. E. Richter
J. B. Shacklett
W. H. Rennick

AMERICAN SAFETY TABLE CO., INC. (378, 379, 404, 405)
224 Fifth Ave., New York 1, N. Y.
Features AMCO individual motor and stand, group-drive tabling, and new knit goods pressing and conveying unit.
Representatives at booth:
David Frankel
Julian C. Frankel
Ben Greenawalt
Sam Wolf

AMERICAN SCHWEITER CO. (442, 443, 450, 451)
22 Ashmont Ave., Whitinsville, Mass.
Features precision Vario-Coner cone winder, Model KM, equipped with stop motions that eliminate backwinding.
Representatives at booth:
H. J. Theiler
Walter Zollinger
Julius Steinberg

AMERICAN THREAD CO. (295, 296, 309, 310)
260 W. Broadway, New York 13, N. Y.
Features cotton and synthetic threads and yarns.
Representatives at booth:
Curtis Bowne
Walter Fluegel
B. Rebbaum
W. McCullock
R. Howell
R. Hall
J. Buscher
J. W. Kennedy
H. Horrocks
H. Greeson
J. Conway
H. Fennswell
E. Roller
E. Pretty

AMERICAN VISCOSE CORP. (327, 328, 337, 338)
350 Fifth Ave., New York, N. Y.
Features reception booth.

AMERICAN VITOS CO., INC. (77)
220 East 42nd St., New York, N. Y.
Features hosiery-mending machines, including company standard Type-C and Desmo models.
Representatives at booth:
A. de St. Maurice
J. Hennique

AMERICAN WOOL & COTTON REPORTER (76)
286 Congress St., Boston, Mass.
Features a textile publication.

AMERICAN YARN & PROCESSING CO. (457, 458)
Mt. Holly, N. C.
Reception booth.
Representatives at booth:
W. H. Suttenfield
C. E. Wood
T. J. Davis
E. W. Wood
W. H. Hutchinson
W. S. Montgomery
E. W. Peacock
H. W. Davenport
E. J. Holbrook
J. M. Cowan
O. P. Eneign
L. T. Howick
T. C. Smotherman

JOSEPH AMON, INC. (70)
Rahway, N. J.
Features hosiery-mill equipment and accessories.
Representatives at booth:
Anton Amon
Hugo Burdych
Richard Cass
R. H. Therrell
W. Larmour

AMPLEX MFG. CO. (120A, 121A)
6501 Harper Ave., Detroit 31, Mich.
Features Oilite metal-powder products of ferrous and nonferrous material, including oil-cushioned, self-lubricating bearings; finished machine parts; permanent metallic filters; frictional units; and bar and plate stock. New-type bolster bearings will also be shown.
Representatives at booth:
Frank Beemer
A. J. Diesinger, Jr.
H. G. Silcox
J. E. Blizzard

ARROW NEEDLE CO. (407)
Manchester, N. H.
Features knitting-machine latch needles.
Representatives at booth:
George L. Heaton, Jr.
Donald A. McDonnell
Jack Forstadt

ATLANTIC RAYON CORP. (278, 279, 280)
86 Crary St., Providence, R. I.
Features packaged-dyed yarns, with particular emphasis on Coldfre and Daygio colors and fabrics.

BACKUS MACHINE WORKS (14, 15)
Route 17 and Berry Ave., Carlstadt, N. J.
Features hosiery counter and newly developed nylon-hosiery conditioning cabinet for increased production and reduction of pull threads.
Representatives at booth:
A. Jacobsen
F. Backus
J. H. Littenberg

BARRELED SUNLIGHT PAINT CO. (96C)
12 Dudley St., Providence, R. I.
Features paint products for maintenance of buildings and equipment.
Representatives at booth:
Howard F. Eastwood
Alex S. West
Fred McCarthy
C. L. Park
Paul F. Tuthill

BAUSCH & LOMB OPTICAL CO. (416)
635 St. Paul St., Rochester, N. Y.
Features visual instruments for the textile industry, including the Ortho-Rater for measuring visual ability; magnifiers for distortion-free examination of fibers, yarns, patterns, etc.; and a stereoscopic microscope which gives three-dimensional view of fabric for analysis purposes.
Representatives at booth:
R. Craytor
G. Houseworth
R. H. Cook

BEEMER ENGINEERING CO. (120A, 121A)
401 No. Broad St., Philadelphia, Pa.
See Amplex Mfg. Co.

BENTLEY KNITTING MACHINE ORG., INC. (160 to 171)
31 Canal St., Providence, R. I.
Features Komet double-cylinder hosiery and glove machines; Blackburn underwear and outerwear plain and fancy machines; Wildt Autoswift double-cylinder rib-wrap hosiery machines; and Wildt underwear and outerwear plain and fancy machines.
Representatives at booth:
Alfred L. Hutton, Jr.
Edward L. Murphy
William Bentley
F. D. Sims
Mr. Batchelor
Mr. Bottrill
Mr. Hanford
Mr. Deans
Mr. Manger
Mr. Wainright
Mr. Goddard
E. S. Barsby
Mr. Berens
Mr. Thomson
Mr. Powdrill
Mr. Holmes

BOGER & CRAWFORD (291, 292, 313, 314)
K & E. Venango St., Philadelphia 34, Pa.
Representatives at booth:
Fredaricka Boger
Robert C. Boger
Ernest T. Boger
Alfred H. J. Boger
Ira B. Wattis
W. R. Carothers
J. D. Whitaker
W. C. Henderson
John Carrasco
Harry J. Riebe

H. M. BOSHAMER & CO., INC. (47, 48)
2221 Chestnut St., Philadelphia, Pa.

H. BRINTON CO. (399 to 402, 417 to 420)
Kensington Ave. & M St., Philadelphia, Pa.
Features knitting machines, including revolving-cylinder dogless machine for 1x1 or 2x2 rib underwear; stationary-cylinder sinker top loop machine; three position wheel machine for production of fancy fabrics; multiple-feed plain jersey machine; and others.
Representatives at booth:
Russell L. Brinton
H. W. Anderson
David B. Brinton
Joseph Olachea
George McDowell
Ernest L. Luchsinger
Seth B. Bittle
Nevin R. Kistler
Harry A. Strasberg
Thomas Padgin
Frank Vendetti
Russell Forrest

BURLINGTON ENGINEERING CO., INC. (116, 117)
East Elm St., Graham, N. C.
Features stainless-steel dyeing machinery, including rotary- and package-dyeing machine, and six-ft. dye beck.
Representatives at booth:
J. Saunders Williamson
J. A. Okey
T. M. Dixon

CANNON MILLS, INC. (408, 409)
70 Worth St., New York, N. Y.
Reception booth.
Representatives at booth:
H. E. Aken
C. V. Albright
J. C. Bartlett
B. W. Clarke, Jr.
Henry Crumbliss
M. B. Foil
Robert Henrich
J. J. Meyer
J. W. Turner
J. C. Williams
W. F. Denning
D. A. Long, Jr.
T. R. Smith

CHINA GROVE COTTON MILLS CO. (241, 242)
China Grove, N. C.
Reception booth.
Representatives at booth:
C. J. Beaver
J. H. Rutledge, Jr.
Karl M. Nelson
B. F. Corvin
F. P. Corvin

COLLEGE PHARMACY PRODUCTS (79)
16 Brooks Park, Medford, Mass.
Features Clena-form compound for removal of residue from metal equipment where high temperatures are maintained.
Representative at booth:
B. Zarakov

COMER-AVONDALE MILLS, INC. (179, 180)
58 Worth St., New York, N. Y.
Features natural and dyed spun-rayon, cotton, and combed Peeler knitting yarns.
Representatives at booth:
S. B. Terry
S. E. Fulton
J. F. Sharp
B. C. Weber
R. E. Fulton

COMMONWEALTH COLOR & CHEMICAL CO. (523)
3240 Grace Ave., New York 67, N. Y.
Features wet-processing agents, including scouring agents and dyeing and bleaching assistants. Newly developed dyeing assistants for Orlon, Fiber V, and dynel; new hosiery finishes; and Trough Oil S for full-fashioned knitting will be shown.
Representatives at booth:
A. S. Wittnebel
O. W. Bertram
C. M. Robbins
R. Tiedemann
M. W. Mueller
G. D. Fronmuller
R. Rhodes
G. E. Fleming
A. E. Skead
E. M. Marcin
W. H. Schoellhorn
R. E. Davey
R. Smith

CHARLES COOPER CO., INC. (383)
630 Main St., Bennington, Vt.
Representatives at booth:
George A. Parsons
R. M. Polley
Raymond Rogers
E. V. Z Lane

STANDARD *Durene**

quality-controlled mercerized

combed cotton yarn

justifies your preference in

full production and sales

KNIT OR WEAVE

STANDARD Durene's smoothness and uniformity speed production in your plants and tie down your costs to minimum day after day.

Standard-Coosa-Thatcher Co.

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- NEW YORK 16, NEW YORK, 185 Madison Avenue
- CHICAGO 54, ILLINOIS, Merchandise Mart
- PHILADELPHIA 9, PENNSYLVANIA, 123 S. Broad Street
- READING, PENNSYLVANIA, 509 Walnut Street
- GREENSBORO, NORTH CAROLINA, Guilford Building
- UTICA, NEW YORK, Post Office Box 105

Representatives in Canada, Central & South American Countries

Visit us at the
Knitting Arts Exhibition
Booths #215-216-239-240

*REG. U.S. PAT. OFF.

Standard Durene • S-C-T Cotton Industrial Threads

For more information, write direct or use Reader Service post card.

COTTON YARNS CO. (222, 222A)
389 Fifth Ave., New York, N. Y.

Features cotton threads and yarns, including combed, mercerized, carded, and dyed cotton yarns; and combed Peeler and Sak sewing-thread yarns.

Representatives at booth:
H. A. James
Robert J. Gurney
Nat Zank
Edward Strauss
Jules Witten

CRAWFORD MFG. CO., INC. (254, 255)
10 Dennis St., New Brunswick, N. J.

Features electric stopmotions, needle savers, and hole detectors for knitting machines.

Representatives at booth:
Alfred Crawford
George Onderdonk
Frank Doerr
Michael Antonevich

H. E. CRAWFORD MILL SUPPLY CO. (514, 515)
824 S. Main St., High Point, N. C.

Features mill supplies and circular-hosiery knitting-machine parts, including newly developed tungsten carbide looper knives.

Representatives at booth:
Guy E. Carr
Herman E. Crawford
Jay Bodenhamer
H. E. Crawford, Jr.

CROSS COTTON MILLS CO. (368, 369)
Box 529 Marion, N. C.

Features double - carded and combed bleached and dyed cotton-knitting yarn on cones, particularly bleached flatlock yarn.

Representatives at booth:
S. R. Cross
Oliver R. Cross
I. I. Davis

CUTTING ROOM APPLIANCE CORP. (99 to 102)
45 W. 25th St., New York, N. Y.

Features cloth - laying machines, cutting tables, measuring and inspecting machines, and the newly developed CRA Clip-matic thread trimmer.

Representatives at booth:
David Grossberg
Harold Liebman
Harrison Bard
Bert Gottschalk

DAILY NEWS RECORD (62)
7 E. 12th St., New York, N. Y.

Features a textile publication.

C. R. DANIELS, INC. (281)
Baltimore, Md.

Features light-weight aluminum-frame hosiery trays; and canvas bags, baskets, and trucks for the knitting industry.

Representatives at booth:
L. E. Carson
J. S. Connelly

DAVISON PUBLISHING CO. (11)
4 Franklin St., Ridgewood, N. J.

Features textile publications.

DIXIE MERCERIZING CO. (288 to 290, 315 to 317)
Chattanooga, Tenn.

Reception booth.

Representatives at booth:
J. B. Frierson, Jr.
A. K. Johnson
George M. Porges
H. M. Peters
P. D. Morrow
W. W. Logan
E. R. Kimball
D. O. Blevins
J. Blackwood Cameron
Alexander Cameron, III
W. A. Elpper, Jr.
F. W. Frank
George A. Dalglish
Preston H. Dalglish
T. J. Tighe

DUBIED MACHINERY CO. (521, 522)
11-30 45th Rd., Long Island City 1, N. Y.

Features type-CAL fully automatic double-lock links machine for producing true cable stitch and reproducing Intarsia patterns.

Representatives at booth:
John G. Sandri
Ernest Hafner
Jacques Gutknecht

DUFFY SILK CO. (437 to 439)
1270 Broadway, Buffalo 12, N. Y.

Reception booth.

Representatives at booth:
Carl A. Lorens, Jr.
C. Walter Seidel
George Murphy Company

DUPLAN CORP. (249 to 251)
1407 Broadway, New York 18, N. Y.

Features thrown yarn.

Representatives at booth:
G. Friedlander
G. Fenton
F. J. Collins
R. H. Griffith
F. D. McKay
R. Mebane
N. P. Murphy
W. S. Wheeler

E. I. DU PONT DE NEMOURS & CO., INC. (38 to 40, 49 to 51)
Wilmington, Del.

Features synthetic fibers, including acetate- and viscose-process rayon, nylon, Orlon acrylic fiber, and Fiber V.

JOHN A. EBERLY, INC. (266, 267)
Box 201, Reading, Pa.

EDMOS PRODUCTS CORPORATION (110-111-112 113-114-115)
13 Christopher Ave., Brooklyn 12, New York

Features
Improved circular rib body machines

Representatives at booth:
Lawrence Reed
Julius Citron
Arnold Fried
Milton Moskowitz

ESSEX-RIPLYN CO. (524)
Box 31, Hackettstown, N. J.

W. F. FANCOURT & CO. (371, 372)
516 S. Delaware Ave., Philadelphia, Pa.

Features finishing materials for hosiery and fabrics, including transfer removers, softener agents, and water proofing compounds. A new hosiery finish containing type-8 nylon, which reduces snags and pull threads, will also be shown.

Representatives at booth:
W. F. Fancourt, Jr.
W. F. Fancourt, III
John L. Fancourt
Howard A. Virkler
Thomas Lindley
Claude Wolff

ERNEST A. FEUSTEL, INC. (67, 68)
N. J. State Highway No. 17, Lodi, N. J.

Features parts for full-fashioned machines, including replaceable thread carriers and Dura-safety tubes.

Representatives at booth:
Ernest A. Feustel
Raymond Feustel
Frank Feustel
Walter H. Fricke

FIDELITY MACHINE CO., INC. (274, 275)
3908 Frankford Ave., Philadelphia 24, Pa.

Features new Multi - Design ribbers for production of fancy-design true-rib fabric and trim for knitted garments.

Representatives at booth:
J. P. Vogt
H. I. Green
W. Larkin
J. R. Bennett
G. Petrie
L. K. Hill

FIRESTONE INDUSTRIAL PRODUCTS (394 to 396, 423 to 425)
Akron, Ohio

See Percy A. Legge

J. A. FIRSCHING & SON, INC. (376, 377)
421 Broad St., Utica 2, N. Y.

Features newly developed fully automatic laying-up machine.

Representative at booth:
Robert A. Firsching

FLETCHER WORKS, INC. (428 to 430)
Glenwood Ave., & 2nd St., Philadelphia, Pa.

Features throwing machinery and centrifugal extractors. Included will be a double-deck pirn twister and double-deck headless package twister, both equipped with broken - end knockoffs and bobbin lifters; and a 40-in. Whirlwind open-top extractor with stainless-steel basket and automatic hydraulic brake and timer.

Representatives at booth:
Fletcher Schaum
W. H. Rometsch
C. W. Moore
W. W. Egee
T. B. Baldridge, Jr.
T. M. Jackson, Jr.
F. W. Warrington
George Dudley
D. P. Underhill
Carl Harris

FLORENCE THREAD CO., INC. (223, 223A)
New Jersey Ave. & Fairfield St., Riverside, N. J.

Features dyed carded, combed, and mercerized knitting yarns.

Representatives at booth:
Fred M. Grauer
Ernest W. Brenner
Warren V. Shenk

THE FORMICA CO. (112C)
4614 Spring Grove Ave., Cincinnati 32, Ohio

Features Gyrotex and Formica-Tex laminated plastic bobbins.

Representatives at booth:
R. P. Bennett
K. P. Pitt
Stanley J. Cartier
J. H. White
William Miller
R. T. MacAllister
A. J. Lesbirel
H. K. Gladfelter
H. B. Beswick

FOSTER MACHINE CO. (28 to 30, 35 to 37)
South Broad St., Westfield, Mass.

Features winders; nylon-sizing machines; tensionmatic constant - speed constant - tension take-up spindles; Foster-Muschamp Autofill machines; and Foster - Muschamp Autoquille, winding small quills used in narrow fabric looms. A new package for use in high-speed warp creels on fine cotton yarns; the winding of dye packages of synthetic yarns; and the automatic winding of knitting cops for hosiery on the Autofill will also be demonstrated.

Representatives at booth:
E. C. Connor
H. E. Swift
H. A. Cadle
E. H. Ely
John Davenport
P. H. Farmer
E. P. Dodge
G. W. Mallory
H. W. Ball
F. F. Stange
E. R. Davis

FRANKLIN PROCESS CO. (435, 436)
Howard & Clearfield Sts., Philadelphia, Pa.

Features samples of Franklin-dyed yarn.

Representatives at booth:
W. A. Traver
C. W. Dawson
W. F. Wolfe
C. E. McElwee
R. Pollock
C. Ralph Ewing
E. W. Windle
B. S. Phetteplace
James Garner
C. L. Blomgran
S. W. Cable

GASTONIA COMBED YARN CORP. (222, 222A)
Gastonia, N. C.

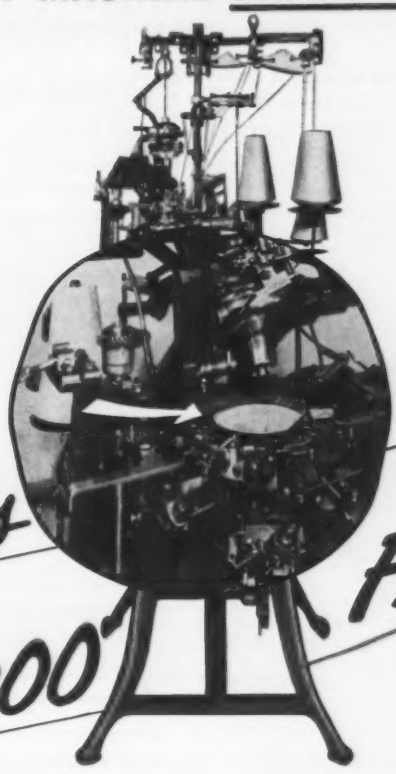
(See Cotton Yarns Co.)

Representatives at booth:
H. A. James
Robert J. Gurney
Nat Zank
Edward Strauss
Jules Witten

GENERAL ELECTRIC CO. (24 to 26)
Schenectady 5, N. Y.

Features motors for textile equipment, including adjustable-speed motor with speed variator, screenless open textile motor, hysteresis yarn-tension brake, vertical yarn-twister motor, electronic-beam let-off control for tricot knitters, and Thy-mo-trol

BANNER ANKLET MACHINE ELIMINATES TRANSFERS



Savings Pay for HDR-300 FAST!

Get rid of hand transfers . . . get set for savings — savings which will pay off the initial investment in this Banner anklet machine fast.* The circle marks the point where transfers are made — automatically!

And besides eliminating the procurement, training and supervision of hand transfer operators — *all* your present hand transfer problems are ended. The Banner Dial-Rib Knitting machine is the automatic answer to these problems.

The "hands-off policy" represented by this new Banner "All-In-One" machine means that you can produce a quality true-rib top anklet in one, complete, non-stop operation. But even more than that, you'll be doing away with the rejects which always accompany hand operations. Your percentage of seconds will be greatly reduced — your volume and quality improved.

A Hemphill Sales Engineer is ready to supply you with specific performance information and exact savings data for the HDR-300, as applied to your own mill organization. Phone or write the Hemphill Company or any of its sales offices today for the full profit story on the Banner Dial-Rib machine.

★ ★ ★

BANNER HDR-300 "ALL-IN-ONE" MACHINE

Initial Production 3-inch Diameter, 48 or 54 Gauge With 5-Color Horizontal Stripes. (Smaller and larger diameters to follow.) See it and other Banner machines at the Knitting Arts Exhibition in Atlantic City, Booths 172-176, 205-209.

*Depends on individual mill practice, number of shifts, etc., but the savings are positive and quickly pay for the Banner Dial-Rib machine.

HEMPHILL BANNER MACHINES — Shaping Hosiery's Footsteps All Over The World!

HEMPHILL COMPANY PAWTUCKET, RHODE ISLAND, U.S.A.

Makers of Banner ® Automatic Hosiery Machines

OFFICES: Empire State Bldg., New York 1, N. Y. Security Bank Bldg., High Point, N. C.
Latin American Export Office, 25 Beaver St., New York 4, N. Y.

drives for both circular-knit and full-fashioned hosiery machines.

Representatives at booth:
S. C. French
R. A. Winner
J. W. Holt
J. J. McCarthy
R. J. DeMartini
G. D. Goddard
E. H. Fairbanks
J. D. Gaughan
F. C. Smith
A. M. Kallod
F. L. Miller

GINSBERG MACHINE CO., INC. (433, 434)

224 Fifth Ave., New York, N. Y.

Features Trim-Master suction loose-end thread-trimming equipment for knit goods, finishing and packing tables, transfer irons, and turning machines.

Representatives at booth:
F. Y. Kitzmiller
Harold Stout
Phil Harris
Si Margolis
William Lieberman

GROVE NYLON CO. (9, 10)

Scranton 10, Pa.

Reception booth.

Representatives at booth:
W. L. Schautz
A. G. Schautz
William T. Cheatham
William C. Napier, Jr.
Robert W. Yeabsley
Robert F. Yeabsley
Harry C. James

H. C. HARDING, INC. (403)

2nd & Tilghman Sts., Philadelphia, Pa.

Features knitting oils and chemical cleaning fluids, including Stay-Coat stainless knitting oil, Humdinger needle polisher and preserver, and hosiery-form cleaners. New 15-den. nylon-yarn lubricant will also be shown.

Representatives at booth:
H. C. Harding
George J. Reihl

HARRIET COTTON MILLS (84A, 84B)

Henderson, N. C.

Reception booth.

Representatives at booth:
J. A. Cooper
M. Y. Cooper
George Dalglish
Alex Dalglish
D. O. Blevins
Walter Brown
William Cheatham
Preston Dalglish
David Swain
A. G. Sewell

HAYSSEN MFG. CO. (503, 504)

Sheboygan, Wis.

Features newly developed automatic hosiery-wrapping machine, adjustable to various-sized packages.

Representatives at booth:
W. A. Hayssen
F. Horwitz
J. C. Johnston
R. P. Wilson
George Laing
George Clark
Harold White

HEANY INDUSTRIAL CERAMIC CORP. (527)

P. O. Box 530, New Haven, Conn.

Features Heanium thread guides of various types.

Representative at booth:
A. O. Pieper

OSCAR HEINEMAN CORP. (412, 413)

2701 W. Armitage Ave., Chicago 47, Ill.

Features dyed and processed yarns, such as nylon, Orlon, and Dacron.

Representatives at booth:
Donald G. Brewster
Jean C. LaVey
Raymond Nelson
Charles Brereton
David Gott
Frank Lunday

HEMPHILL CO. (172 to 176, 205 to 209, 126, 127)

P. O. Box 580, Pawtucket, R. I.

Features knitting machinery, including Banner wholly automatic circular knitting machines; and standard wrap-reverse, vari-pattern, solid-color patterning, and dial-rib machines.

Representatives at booth:
Benjamin R. Ebersman
Joseph D. Hobson
James McDowell
Joseph P. Canavan
William E. Nash
Richard M. Sachar
Eugene St. Pierre
Harry F. Campbell

HENDERSON COTTON MILLS (84A, 84B)

Henderson, N. C.

See Harriet Cotton Mills

HERR MFG. CO., INC. (96B)

318 Franklin St., Buffalo 2, N. Y.

Features flyers and conical rings for worsted, woolen, spun-rayon, spun-nylon, and blended yarns.

Representatives at booth:
Hyatt B. Atwood
Charles M. Kitzmiller

HOFFNER RAYON CO. (246, 247, 282, 283)

Belgrade & Ontario Sts., Philadelphia 34, Pa.

Features packaging dyeing of nylon thread and acetate yarns, skeins, cones, dye tubes, and braider tubes.

Representatives at booth:
Joseph C. Hoffner
John G. Hoffner
Frank M. Shannonhouse, Jr.
John Miller
William J. Henne
David F. Swain

ALFRED HOFMANN & CO. (360, 361, 384, 385)

635 59th St., West New York, N. J.

Representatives at booth:
Carlos A. Hepp
Peter Schoenster
Helmut Peter
William C. Napier
Charles B. Paulus
Max Ebert

HOSIERY INDUSTRY WEEKLY (120, 121)

44 E. 23rd St., New York, N. Y.

Features a textile publication.

HOSIERY MERCHANDISING (120, 121)

44 E. 23rd St., New York, N. Y.

Features a textile publication.

HOSIERY MILL ACCESSORIES CO., INC. (96A)

37 Masonic St., Northampton, Mass.

Features knitting-mill accessories and supplies, including balanced tensions; carrier tubes, tube holders and threaders; take-up straps; mending-hook handles; sinker-slot saws; full-fashioned needles and narrowing points; welt rods; verge plates; eyelets for moistening troughs and snappers; narrowing chains; and all-purpose bonding cement. A new Transpak automatic transferring and packaging machine for hosiery will also be shown.

HOSIERY & UNDERWEAR REVIEW (44A, 45A)

1 W. 34th St., New York, N. Y.

Features a textile publication.

E. F. HOUGHTON & CO. (226, 227)

303 W. Lehigh Ave., Philadelphia, Pa.

HOWES PUBLISHING CO. (120, 121)

44 W. 23rd St., New York, N. Y.

Features a textile publication.

PHILIP V. HUGUES & SONS (43, 44)

4626-32 Baltimore Ave., Philadelphia 43, Pa.

Features heavy-duty portable vacuum cleaners from ½ to 7½ hp. in size, including newly developed units for use on liquid or dry-dirt pick-up without adjustment.

Representatives at booth:
Philip V. Hugues
Philip T. Hugues
Joseph W. Hugues
Samuel C. Ruch
Paul R. Young
Earl T. Kelly

INDIAN ORCHARD FINISHING CO. (512)

Indian Orchard, Mass.

Features extensive range of finishes for knitted cottons, wools, and blends including stripe-set process and new methods of shrinkage control.

Representatives at booth:
Larry Wess
Allen Leibowitz
Charles Brennan

INDIANAPOLIS CHEMICAL CO., INC. (198)

528 N. Fulton St., Indianapolis, Ind.

Features nylon cleaning and trough solutions.

Representatives at booth:
H. T. Smolenski
J. L. Thibodeau
R. E. McMillan

INDUSTRIAL DRYER CORP. (73, 74)

P. O. Box 850, Stamford, Conn.

Features fully automatic H-W conditioner for nylon hosiery which is available for steam or electric operation.

Representatives at booth:
F. H. Friend
J. R. Tutt
F. W. Caesar
W. H. Truesdale II

INFORMATION BUREAU FOR KNITTING ARTS EXHIBITION (75)

LOYAL T. IVES CO., INC. (244, 245)

19 Water St., New Brunswick, N. J.

Features special parts for knitting machines, including spring-beard needles, sinkers, and jacks.

Representatives at booth:
Theodore Whitlock
Theodore Whitlock, Jr.
Charles S. Lydecker
Raymond Bergen

JACQUARD KNITTING MACHINE CO., INC. (1A, 1B, 1 to 6)

G & Lycoming Sts., Philadelphia, Pa.

Features knitting machinery with emphasis on size, cut, and additional feeds. The new 80-in. model-T.A. 12 machine will be shown.

Representatives at booth:
J. Tittl
F. Beeton
H. Albertman

JOHNSON SERVICE CO. (184, 185)

507 E. Michigan St., Milwaukee, Wis.

Features automatic temperature- and humidity-control apparatus in actual operation, including room-type, duct-type, and remote bulb thermostats and humidostats; and various types of valves. The newly developed Record-O-Stat for recorder control and aspirating cabinets for thermostats and humidostats will also be shown.

Representative at booth:
M. M. Herrick

JOHNSTON MILLS CO. (268, 269)

Charlotte, N. C.

Features sample cones of carded, combed, and Durene yarns, both natural and dyed.

Representatives at booth:
David R. Johnston
Donald R. Jonas
John D. Stratford
William J. Yates
Eddie E. Jones, Jr.
F. N. Belk
J. W. Ferguson
William J. Crummer
W. B. Phelps, Jr.
R. M. Bechtel

KAHN & FELDMAN, INC. (364, 365, 380, 381)

200 Madison Ave., New York, N. Y.

Reception booth.

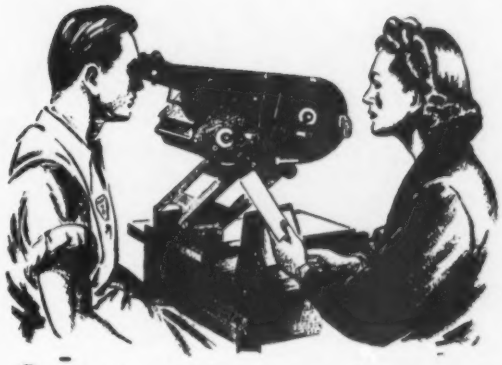
Representatives at booth:
Gerald N. Frank
D. O. Blevins
Pen Wilson
Charles Ibach, Jr.
Alexander Cameron
Preston Dalglish
Herman Kurtz
Leon J. Weil

C. P. KALER CO. (89E)

100 E. 7th St., Lansdale, Pa.

Features dye nets of rayon, cotton, and Orlon; storage bags; carton liners; and "Nopuls" wraps.

Production Increased . . .
Quality Improved . . .
Employees Happier . . .
. . . AT ROCKY MOUNT MILLS



Writes John Scott, Jr., Personnel Director of Rocky Mount Mills, Denver, Colo.:* "Good personnel management is really nothing more than finding ways of insuring personal job success. Through the Bausch & Lomb Occupational Vision Service we got precisely what we wanted—a means of reducing costs, increasing production, and improving quality. And it wrote up a profit for the personnel department.

"What the Occupational Vision program did for us us was to classify the employee's visual ability and match it to a job where it measured up to required standards. Once visual skills had been properly related to the jobs in our plant, production increased, quality improved, and the employee himself was much happier."

**Reprint of Mr. Scott's complete article available on request*

VISIT
BOOTH 416
KNITTING ARTS
EXHIBITION
APRIL 30—MAY 4

See how the Bausch & Lomb Occupational Vision Service program works, how it can increase profits in *your* plant. Or write today for complete information. Bausch & Lomb Optical Company, 632-4 St. Paul St., Rochester 2, N.Y.

From Rocky Mount Mills, and from dozens of other plants in textiles and other industrial fields, where the Bausch & Lomb Occupational Vision Service program is being used, come reports of savings in waste and rejects, of lowered labor turnover, of shortened training time, of improved selection and placement, of reduction in absenteeism, of reduction in accidents, of improved quality and greater production, of increased employee earnings and higher morale. Some, or all, of these benefits can be realized in *your* plant. Send today for illustrated brochure "Eyes *Right* for the Job." Bausch & Lomb Optical Co., 632-4 St. Paul St., Rochester 2, N.Y.

BAUSCH & LOMB
Occupational Vision Service

 For more information, write direct or use Reader Service post card.

Representatives at booth:
C. P. Kaler
Paul Kaler

KALI MFG. CO. (69)
427 E. Moyer St., Philadelphia 25, Pa.

Features scouring agents and finishing products for hosiery and knitted fabrics, including trough solutions for knitting nylon; K.N.K. cleaner for full-fashioned knitting machines; dyeing and bleaching agents; penetrants; and water repellants.

Representatives at booth:
S. G. Davenport
J. A. Branegan, Jr.
William B. Griffin
John Gilroy
Raymond Schadewald

KAUMAGRAPH CO. (224, 225, 230, 231)
14th & Poplar Sts., Wilmington, Del.

Features dry transfers for hosiery and textiles; Prestomark labels, seals, and lithographed packing of all types.

Representatives at booth:
W. N. Given
David W. Archibald
H. A. Keech
F. T. Mareton
E. P. Lindley
W. P. Raifor
W. A. Gardner
J. L. Reeves

KEARNY MFG. CO., INC. (177, 178, 203, 204)
681 Schuyler Ave., Kearny, N. J.

Features textile conditioning machinery and chemicals, particularly Surco system of yarn conditioning on winders; moisture testers; and midget textile psychrometers.

Representatives at booth:
C. F. Dulken, Sr.
W. O. Schlimbach
R. H. Sommer
Dr. Karl Heyman
C. F. Egues
P. Reuter
H. Sonntag
G. Westwater
C. F. Jones

KIDDE MFG. CO., INC. (444 to 449)
35 Farrand St., Bloomfield, N. J.

Features the new Kidde-Aveco 168-in. two-bar tricot machine.

Representatives at booth:
William J. Behr, Jr.
John H. Fleming
Clement E. Glover
Kurt Kaak

WALTER KIDDE & CO., INC. (41, 42)
675 Main St., Belleville 9, N. J.

Features tension-control instruments, including three automatic tension compensators for precision control of yarn tensions during warping, rubber-yarn winding, etc.

Representatives at booth:
C. L. Griffin
F. H. Muller
J. S. Gosnell
D. M. Kroll

A. KIMBALL CO. (287)
307 W. Broadway, New York, N. Y.

Features labeling and printing machines, including cone-label marking machines; Kimco machine for printing tags and labels; midget marking machine; and newly developed Kimflex ticket-attaching machine which prints complete information on tickets and automatically attaches tickets to hosiery.

Representative at booth:
Lee J. Waters

Paul M. Pope
John P. McGuire
John C. Quinn
Ted Spencer
Frank Brady
H. Tracy Odom

JOSEPH KLUMPP CO. (406)
385 Lancaster Ave., Haverford, Pa.

Features carded, combed Peeler, Durene, combination, and specialty yarns.

Representatives at booth:
J. J. Klumpp
G. L. Vonder Lindt
Wallace Gill, Jr.
E. J. Keenan, Jr.
T. V. Lindsay
William H. Cronin, Jr.
Samuel K. George, III
Joseph M. McGinnes

THE KNITTER (370)
Charlotte, N. C.

Features a textile publication.

LACONIA NEEDLE CO. (217, 218)
117 Union Ave., Laconia, N. H.

Features latch - knitting - machine needles for hosiery, underwear, and outerwear.

Representatives at booth:
M. F. Pray
C. O. Hodges
Bruce Lauderbach
Guy L. Dawson

LAUREL SOAP MFG. CO. (228, 229)
Tioga & Thompson Sts., Philadelphia, Pa.

Features line of soaps, oils, and finishes for the knitting trade.

Representatives at booth:
Clarence E. Bertolet
W. H. Bertolet, Jr.
A. Henry Gaede
W. H. Bertolet, III
Thomas C. Holst
Albert H. Rant
Robert P. Rhodes

LEATEX CHEMICAL CO. (505, 506)
2722 No. Hancock St., Philadelphia, Pa.

Representatives at booth:
John McChesney, Jr.
Joseph A. Clark
Charles L. Hammell
Herbert Higginbotham
William Brink
Maurice M. Guertin
John F. Rieder
John McChesney, Sr.
Harry Buckley

BRUNO E. LEDERER (34)
870 W. 181st St., New York 33, N. Y.

Features double-cylinder hosiery-knitting machines manufacturered by San Giorgio Societa Industriale per Azioni.

Representative at booth:
Bruno E. Lederer

PERCY A. LEGGE (394 to 396, 423 to 425)
212 Summer St., Boston, Mass.

Features woolen and worsted yarns and specialty blends; cashmere, angora, nylon, Vicara, etc. Firestone products, including Control covered elastic thread and Rib-On bare cut thread, will also be shown.

Representatives at booth:
D. H. Vanderleck
Henry C. Legge
Arthur E. Snyder
Oliver L. McCurdy
A. Rex James
Webster Smith
R. S. Rosenfeld
R. S. Mitchell
Henry Stawniak
R. J. Gracia

LEIGHTON MACHINE CO. (33)
Manchester, N. H.

Features samples and literature on company equipment.

Representatives at booth:
Alfred B. Gould
Frank C. Golden
John C. Rice
Leon H. Rice, Jr.

LEON-FERENBACH, INC. (124, 125)
40 W. 40th St., New York, N. Y.

Features cones and stockings showing latest yarn developments.

Representatives at booth:
Carl Ferenbach
W. W. Patten
C. W. Wolcott
R. W. Boyd

KARL LIEBERKNECHT, INC. (252, 253, 276, 277)
P. O. Box 717, Reading, Pa.

Features sound moving picture showing Lieberknecht 52-section hosiery-knitting machines in operation, and samples of hosiery indicating various new constructions developed recently.

Representatives at booth:
C. A. Friedmann
George Groh
L. S. Engle
John Renger

LYDON BROTHERS, INC. (45, 46)
85 Zabriskie St., Hackensack, N. J.

Features conditioning and presetting equipment for nylon hosiery, including new models of monofilament - conditioning equipment.

Representatives at booth:
C. H. Gingler
J. V. Calhoun
J. P. McBride
P. T. Lydon
T. Lydon

DAVID MAIMIN & CO. (353)
633 Arch St., Philadelphia 6, Pa.

Features equipment for knitting-mill cutting, pressing and stitching rooms, including cutting tables; thread-trimming machines; canvas hampers and baskets; pressing irons; and pressure-sensitive tape dispensers and tables for packing. The new Speed Trim thread trimmer and Suredry boiler and generator will be featured.

Representative at booth:
A. M. Maimin

MARKEN MACHINE CO. (329, 330, 335, 336)
150 Congress St., Keene, N. H.

Features industrial marking and printing machines, including Model-27A hosiery welt printer, Model-25A box printer, Model-126 label producer, and Tickopres and Imprima machines for filling in variables on paper labels.

Representatives at booth:
Harold D. Milton
Charles H. Cheeseman
Otto H. Meyers
Harold B. Lampman
Earle C. Quimby, Jr.
Niels J. Madsen

MARQUETTE METAL PRODUCTS CO. (89 to 91)
1145 Gakewood Dr., Cleveland 10, Ohio

Features roller-bearing spindles. Individual test frames with spindles operating at speeds of up to 15,000 rpm. will be on display.

Representatives at booth:
J. J. Hallissy
C. H. White
W. P. Russell
Byrd Miller

STANFORD MARLEY DISTRIBUTING CO., INC. (12)
505 Fifth Avenue, New York 17, N. Y.

Features Velox fully automatic hosiery-repair machines, new-type needles, and new pull-thread mending machine.

Representative at booth:
Stanford Marley

MARVEL SPECIALTY CO. (89A, 89B)
P. O. Box 125, Paducah, Ky.

Features Marvel pull-thread repair machine in operation, repairing both gray and dyed hosiery.

Representatives at booth:
Joseph Haines, Jr.
Don H. Clark
Grayson Harralson
Gus T. Smith

THE MERROW MACHINE CO. (431, 432, 461, 462)
28 Laurel St., Hartford 6, Conn.

Features overseaming, overedging, and hemming machines.

Representatives at booth:
J. M. Washburn
E. E. Champlin
H. F. Stolzenberg
W. N. Reynolds
C. W. Davis

CLARENCE L. MEYERS & Co. (358, 359, 386, 387)
Second & Somerset Sts., Philadelphia, Pa.

Features combed and carded natural or dyed Durene for knitting and weaving; and spun-nylon and nylon combination yarns.

Representatives at booth:
Clarence L. Meyers
Milton M. Meyers
James A. Meyers
Gordon E. Meyers
Harry W. Schrader
Edward N. Myers
Daniel Strauss
Ernst W. Fowler
Louis Eschelbach
Russell Gant
Fred K. Johnston, Jr.
Charles E. Bender

EXPERIENCE hits the target every time

Oscar Heineman offers you the advantages of more than five decades of successful experience as expert processors of yarn for the hosiery and knitting trades—a backlog of know-how that cannot be surpassed.

At Oscar Heineman's plant you will find the most modern processing machines, the skilled workmanship that delivers the finest processed nylon, silk and rayon yarn and that priceless ingredient of seasoned experience.

Your product is no better than the yarn that goes into it. With a Heineman-processed yarn you start right and you sell right because the workmanship, the quality and the experience are there.

A Heineman-processed yarn is insurance for hitting your market target.

Inquiries are cordially invited. If you have a special problem, the chances are that we can come up with a solution.

OSCAR HEINEMAN CORPORATION

DIVISION OF AETNA INDUSTRIAL CORPORATION

2701 ARMITAGE AVENUE, CHICAGO 47, ILLINOIS

Heineman famous for quality since 1893

DONALD G. BREWSTER, *President and General Manager*

SALES AGENTS • C. D. GOTT COMPANY • 513 Chattanooga Bank Bldg. • Chattanooga, Tenn. • Tel. 7-8879
• THOMAS C. ASSHETON COMPANY • 11 West 42nd St. • New York 18, N. Y. • Tel. Pennsylvania 6-8280
• FRANK LUNDAY • P. O. Box 1154 • Charlotte, N. C. • Tel. Charlotte 8100

Open Secret *in The Trade*: If your 15-deniers are made from twisted nylon, they'll have a duller finish, more comfort, greater stretch and snag resistance and won't bind or wrinkle at the knees and ankles. It's good business to give women who *Insist on Twist* what they want—good business for you!

Twist on TV: Mrs. and Miss America are being told about the advantages of twisted 15-deniers twice weekly on WNBT and WJZ-TV, New York, and WENR-TV, Chicago. See Newspaper for time.

MID-WEST PROCESSORS, INC. (185, 196)
500 No. Third St., Libertyville, Ill.
Features dyed cotton, worsted, spun-nylon, filament - nylon, and rayon yarns and samples.
Representatives at booth:
Carl E. Bick
John Coyne
Jack Lamson

THE MILLER CO. (112A, 112B)
99 Center St., Meriden, Conn.
Features fluorescent, mercury, and incandescent lighting fixtures, and new inspection fixture recently developed.
Representatives at booth:
G. W. Beals
L. M. Grawemeyer
L. A. Kline
A. Phillips
C. Maddox
E. S. Coe
A. N. Martinson

A. MILNE & CO. (7)
745 Washington St., New York 14, N. Y.
Features tool, graphitic, and engineering steels for the textile industry.
Representatives at booth:
J. King Hoyt, Jr.
F. J. Grant
H. M. Behham
H. F. Dicks
J. M. Smith
C. H. Murray
F. D. Illingworth

MILTON MACHINE WORKS, INC. (129)
Milton, Pa.
Features light-metal tricot beams, including aluminum-alloy tricot beams with forged heads.
Representatives at booth:
W. DeWitt Leinbach
J. Stanley Billig
Charles J. Anchor

NATIONAL ASSN. OF HOSIERY MFRS. (105A)
468 Fourth Ave., New York

NATIONAL BUNDLE TYER CO. (516)
Blissfield, Mich.
Features general-purpose tying machines, including models for bundling socks and gloves with two parallel simultaneous ties.
Representatives at booth:
G. P. Saxton
J. B. Saxton
Charles Reitzes
Charles Schumacher

NATIONAL VULCANIZED FIBRE CO. (293, 294)
Maryland Ave., Wilmington, Del.
Features articles made from vulcanized fiber and laminated plastic.
Representatives at booth:
J. G. Beasten
R. F. Bogart
E. R. Shawn
D. J. Wible
J. S. Tatnall

NORTH AMERICAN RAYON CORP. (297, 298, 307, 308)
261 Fifth Ave., New York, N. Y.
(See American Bemberg Corp.)

ONYX OIL & CHEMICAL CO. (210, 211)
190 Warren St., Jersey City 2, N. J.
Features Eternalure hosiery finishes and chemical specialties for processing all types of hosiery and knitted fabrics.
Representatives at booth:
L. P. Brick
A. R. Jenny
A. C. Mackey
E. W. Peters
R. A. Watson
J. W. Huber

ORDNANCE GAUGE CO. (518, 519)
Amber & Hagert Sts., Philadelphia, Pa.

PANAMERICAN PUBLISHING CO., INC. (13)
570 Seventh Ave., New York 18, N. Y.
Features Spanish - language publications.

PARAMOUNT TEXTILE MACHINERY CO. (284, 285, 301 to 304)
131 S. Wabash Ave., Chicago 3, Ill.
Features hosiery - finishing equipment, including Universal pre-setter, air-cooled table, stainless-steel and aluminum forms, Duomold model-84 reformer, and Paramark transfer machines.
Representatives at booth:
H. Pope, Jr.
William P. Pope
J. C. Fenley
W. H. Albertson
O. A. Siegel
L. D. Ross
W. E. Pike
L. J. Albertson
M. Gustafson

JOSEPH PERNICK CO., INC. (199)
54-19 Flushing Ave., Maspeth, L. I., N. Y.
Features knit-goods finishing equipment, and measuring, and examining machines for tubular-knit goods.
Representatives at booth:
Louis H. Pernick
David Pernick
David Haft

PHILADELPHIA METAL DRYING FORM CO. (103 to 105)
4550 Torresdale Ave., Philadelphia, Pa.
Features hosiery-drying forms and accessory equipment. The new Hi-Temp Intensifier table for use in steam boarding will also be shown.
Representatives at booth:
Joseph Seligman
Thomas A. Tempke
Harry F. Stern, Jr.

PREMIER TEXTILE MACHINERY CO. (533, 534)
440 Mercer St., Jersey City, N. J.
Features a newly developed high-speed Raschel-type warp knitter with 96-in. stitching width.
Representatives at booth:
Samuel Hoffman
Conrad Hetu

PROCTOR & SCHWARTZ, INC. (186 to 195)
Seventh St. and Tabor Rd., Philadelphia 20, Pa.
Features automatic boarding and preboarding equipment for women's hosiery; and Nylo-set equipment, including cabinets for nylon hosiery.
Representatives at booth:
Charles S. Tiers
E. A. Pleasor
W. J. Merrigan
W. H. Poole
J. W. Reinhardt
W. A. Dickinson, Jr.

QUEENS MACHINE CO. (529 to 531)
280 Starr St., Brooklyn 27, N. Y.
Features fully automatic links-and-links machine with newly designed tandem carriage for full cable stitch, float work, simulated embroidery, etc.; automatic flat V-type knitting machine; flat double-head border and circular-string border machines. A new flat-collar and trim machine, with various parts and accessories, will also be shown.
Representatives at booth:
Michael Zimic
Raymond Lanthier
Jerry Miskovsky
Marie Lanthier

RAYON & SYNTHETIC TEXTILES (122A)
303 Fifth Ave., New York, N. Y.
Features a textile publication.

READING TESTING LABORATORIES (528)
245 Poplar St., Reading, Pa.
Features machine cleaners, conditioners, and trough solutions. The newly developed Labricator, an attachment containing a conditioning chemical agent designed to assure perfect stitch formation and eliminate troughs, wicks, trough solutions, and wick oils, will also be shown.
Representatives at booth:
Dr. Jay H. Quinn
John W. Auman
Robert W. Ganter
Edward E. Davis
Mary Ann Pappas

ROBERT REINER, INC. (16 to 23, 23A, 23B)
550 Gregory Ave., Weehawken, N. J.
Features the Reiner 168-in. tricot machine, with a new direct cloth take-up, lubricating system, and adjustable motor support with outside belt drive; the Model-SW-24 sectional warper with yarn-storage device; a 4-section Twin Knitter with silent drive and three carrier and lace attachments; and a creel-demonstration section showing use of nylon pirns and special pirn-holders, stabilizers, and disk tensions.
Representatives at booth:
Dr. Robert Reiner
Fritz Lambach
August Schoenenberg
Karl T. Marx
George Moebius
Hanns L. Wirth

RELIANCE ELECTRIC & ENGINEERING CO. (410, 411)
1088 Ivanhoe Rd., Cleveland 10, Ohio
Features V*S drive and squirrel-cage induction motor.
Representatives at booth:
K. S. Lord
N. R. Smith
E. H. Sowers
M. M. Hepler
C. D. Herbert
E. H. Koontz
F. R. Obenchain
E. G. Orahood
F. W. Leitner
E. E. Helm
P. W. Arnold
C. E. Robinson
R. L. Custis
K. F. Ertell

REX HOSIERY FINISHERS, INC. (375)
B St., Above Allegheny Ave., Philadelphia, Pa.
Features Rexonize hosiery-finishing process.
Representatives at booth:
Sidney T. Simon
A. V. Gray

RICHMOND OIL, SOAP & CHEMICAL CO. (118)
1941 Frankford Ave., Philadelphia, Pa.
Features chemical specialties for knitting, dyeing, and finishing, particularly for nylon hosiery. Products to be on display include Nylsperse, for union between monofilament and multifilament nylon yarns; Dynyls, for use with naphthol colors; and Nyltex trough solutions.
Representatives at booth:
William Alkus
Morton W. Levi
John Schenkel
Henry M. Rubin
William Kamarek

ROYAL COTTON MILL CO. (31, 32)
Saxapahaw, N. C.
Features dyed and bleached yarns of all counts, including combed, and single and ply cotton yarns; Durene and KPM; nylon, rayon, and acetate specialties.
Representatives at booth:
B. E. Jordan
Frank Longerier

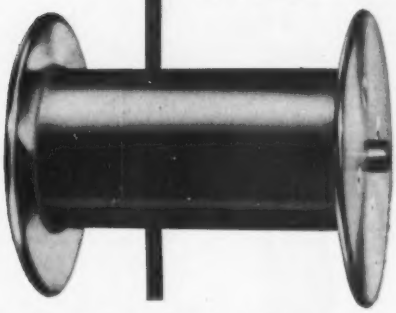
ROYERSFORD NEEDLE WORKS, INC. (311, 312)
Washington St., Royersford, Pa.
Features spring-beard needles, points, hooks, sinkers, dividers, jacks, K. O. bits, chains, straps, and accessories for knitting machines.
Representatives at booth:
Fred O. Heller
R. W. Breidenbach
Charles Bortz

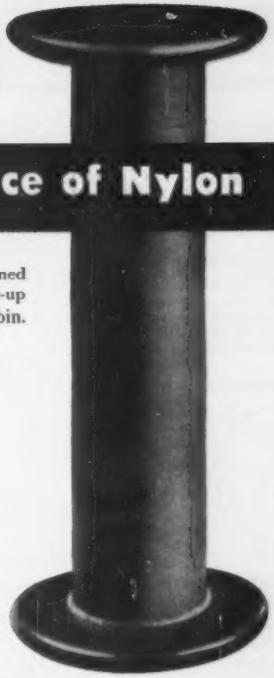
S. & M. DYE WORKS, INC. (520)
3419 Richmond St., Philadelphia 34, Pa.
Features examples of worsted dyeing and finishing processes; shrink-proofed hosiery and sweaters; and a newly developed optical bleach.
Representatives at booth:
Lindsey H. Mason
Malcolm M. Anderson
James R. Shoch

TWO NEW MACK BOBBINS

built to stand the crushing force of Nylon

These two new Mack bobbins are specifically designed to take the crushing force of nylon—one as a take-up bobbin, the other as a twister or spinner-winder bobbin. Both these bobbins have bakelite barrels.





New Mack Take-up Bobbin Features Molded Bakelite Barrel and Aluminum or Stainless Steel Heads—This new take-up bobbin for nylon and synthetic yarns has a molded bakelite barrel. Heads of either aluminum or stainless steel are riveted through the barrel for maximum head-holding power. Dimensional stability is assured regardless of humidity conditions. Felt pads between barrel and head prevent yarn trapping. Despite deliberate efforts to crush this bobbin by excessive winding tension and lengthy steaming at high temperatures not one has failed in service.

Nearly a Year of Mill Testing Preceded the Announcement of These Bobbins—Both these Mack bobbins, under development for more than two years, have been tested in actual mill use for a period of nearly a year. During this time there has been an opportunity to perfect these bobbins to the point where we feel confident that not one will fail if properly used.

Vibrometer Tested—Concentricity Tested—Dimensionally Stable—Additional test facilities have been added to our plant to give these two new Mack bobbins the same thorough vibrometer and concentricity tests that are applied to all types of Mack high speed bobbins. These new bakelite bobbins retain their dimensional stability through repeated steamings, thereby eliminating the need for reboring.

Mack Twister Bobbins Withstand Steaming Without Distortion—This new Mack all-bakelite twister bobbin is designed for high speed operation and can be subjected to steaming time after time without danger of distortion or change in bore. The need for re-reaming the spindle bore is eliminated and with it the resultant danger of unbalanced bobbins.

Bakelite barrels of any desired wall thickness are reinforced top and bottom with press fit molded bakelite bushings. This unit is machined both before and after assembly in order to assure concentricity and balance. Bushings are reamed to fit your spindle.

Heads of high impact bakelite are held on by screws located in such a manner as to lock barrel and bushing together.

Winder Spinner Bobbin Has Vulcanized Fibre Heads—When used as a winder spinner bobbin, the same type bakelite barrel is equipped with vulcanized fibre heads for greater impact strength and lower cost.

We're looking forward to seeing you at Booth 72, Knitting Arts Show

FOR FULL INFORMATION AND PRICES on these and other Mack bobbins, write, wire or phone The Allentown Bobbin Works, Inc., 417 N. 14th St., Allentown, Pa. Phone Allentown 5-1501.

ALLENTOWN BOBBIN WORKS, INC.

B W MACK

ALLENTOWN PENNSYLVANIA

Thomas O'Donnell
James B. Egee

SAN GIORGIO SOCIETA INDUSTRIALE PER AZIONI (34)

Genoa, Italy

See Bruno E. Lederer

SAN-KNIT-ARY TEXTILE MILLS (112D)

5423 Lena St., Philadelphia, Pa.

Features dye nets of all types.

Representatives at booth:
Paul D. Dalsimer
Richard Reis

SAUQUOIT SILK CO., INC. (237, 238)

302 Fig St., Scranton 5, Pa.

Features samples of thrown packages of various types of fibers.

Representatives at booth:
C. Lee Havey
L. W. Schoelpple
M. H. Smith
F. N. Stanley
A. C. Bigelow, Jr.
E. W. Wood
W. H. Hutchinson

SCHOLLER BROS., INC. (232, 233, 258, 259, 270, 271)

Collins & Westmoreland Sts., Philadelphia 34, Pa.

Features soaps, softeners, oils, and finishes for all fibers, including DuraBeau finishes for hosiery; and Schollerized wool-shrinkage treatment.

Representatives at booth:
F. C. Scholler
E. S. Atkinson
J. F. Noble
L. M. Boyd
J. O. Sweitzer
C. H. Schuettler
William Jackson, Jr.
A. H. Miller

GEORGE SCHERR CO., INC. (27)

200 Lafayette St., New York, N. Y.

SCOTT TESTERS, INC. (352)

101 Blackstone St., Providence, R. I.

Features Model-J tensile tester, equipped with A-1 clamps for testing zipper tapes in the filling direction as well as lengthwise, and W attachment for burst testing; Model X-5 single-end tester for yarn and thread; and Model T-2 complete twist counter with piano-cylinder magnifying glass.

Representatives at booth:
Harold W. Horton
David C. Scott, Jr.

SCOTT & WILLIAMS, INC. (142 to 153)

350 Fifth Ave., New York, N. Y.

Features complete line of circular knitting machines, including automatic interlock, fancy Balbriggan flet, and girdle machines; automatic multicolor-pattern inlay machine; Komet jacquard-top links-and-links machine; and other hosiery-knitting machines. New fabric take-ups for the S & W nylon machine, and new color-within-color mechanism for the Komet wrap machine will also be shown.

Representatives at booth:
Ralph E. Thompson
George S. Mumford
Albert E. Page
Harry J. Kelly
William A. Camp
Robert H. Lawson
George H. Miller
Beale J. Faucette
Harold G. Kellett
Walter E. Chaput
Fred W. Smith
John G. Schmidt
Whitman Ide
Fred H. Hallenbeck
Joseph S. Hubbard
William O. McMillan
Hobart S. Ferree
George T. Hunt
Frank Wakefield
Jay Woodburn
A. W. Nealley
D. McIntyre

SELLERS MFG. CO. (31, 32)

Saxapahaw, N. C.

See Royal Cotton Mill Co.

A. G. SEWELL (84A, 84B)

1617 Pennsylvania Ave., Philadelphia, Pa.

See Harriet Cotton Mills

SHELL OIL CO. (83, 84)

50 W. 50th St., New York 20, N. Y.

Features textile lubricants.

Representative at booth:
Tommy Dunlop

SINGER SEWING MACHINE CO. (354 to 357, 388 to 391)

149 Broadway, New York, N. Y.

Features industrial sewing equipment, including over-edging machines, edge trimmers, rotary thread take-up machines with adjustable differential feed, compound-feed machine with double rotary thread take-up and balanced needle feed, chainstitch machine, and high-speed hosiery seamers.

SMITH, DRUM & CO. (52 to 61)

432 W. Allegheny Ave., Philadelphia, 33, Pa.

Features yarn-dyeing equipment, package-extracting and drying machines, and hosiery-dyeing and finishing equipment.

Representatives at booth:
Harry S. Drum
W. C. Dodson
Albert P. March
J. P. G. Patton
Perry M. Parrott
M. Ballentine
Robert N. Smith

SONOCO PRODUCTS CO. (373, 374)

Hartsville, S. C.

Features cones, tubes, cores, spools, bobbins, and paper specialties.

Representatives at booth:
C. H. Campbell
A. H. Gildersleeve
J. K. Taylor
A. W. DuBose
L. H. Stokes
W. B. Broadbent
E. S. Reid
W. A. Biggs
P. F. Williams
W. M. Carpenter
John C. Long
John B. Coxe
Charles Burnham
Owen Fayne

SOUTHERN MERCERIZING CO. (213, 214)

Tryon, N. C.

Features mercerized yarns.

Representatives at booth:
C. J. Beaver
W. C. Ward
W. H. McDonald

SOUTHERN TEXTILE MACHINERY CO. (392, 393, 426, 427)

Second and Norton Sts., Paducah, Ky.

Features looping machines and looper-room accessories.

Representatives at booth:
T. A. Paxton
T. H. DeSpain
R. N. Parkin
Charles Holcomb
James A. George

SPECIALTY PRODUCTS CO. (525)

190 Warren St., Jersey City, N. J.

Representatives at booth:
S. J. Singer
Rene Raas
S. J. Singer, Jr.
Mira Keller
E. Yzewyn
T. J. Flynn

MORRIS SPEIZMAN CO., INC. (86 to 88)

508 W. 5th St., Charlotte, N. C.

Features hosiery-mill machinery, including a new Apex English rib knitter for high-speed production, and newly developed equipment for applying riders to seamless hosiery.

Representatives at booth:
Morris Speizman
Ted Valenstein
Michael P. DeLeo
John H. Barnes

SPUN FIBERS, INC. (123A)

51 Madison Ave., New York, N. Y.

Features worsted yarns and garments.

Representatives at booth:
E. H. Timanus
A. G. Corkery
John L. Stickley
John L. Pfizenmaier
Walter J. Miller
Ed Wood
W. H. Hutchinson

STAMPAGRAPH CO., INC. (78)

79 Alexander Ave., New York, N. Y.

Features hot-iron transfers in one-, two-, and three-color combinations; embossed seals and labels.

Representative at booth:
George Chadwick

STANDARD-COOSA-THATCHER CO. (215, 216, 239, 240)

Chattanooga, Tenn.

Features Durene yarns and threads.

Representatives at booth:
F. R. Harris
E. S. Davis
M. A. Henderson
C. F. Smith
E. R. Dillmore
W. M. Hall
J. P. Rickman
W. S. Lawson
J. O. Foil
Robert Miller
D. R. Barlow
R. C. Thatcher, Jr.

STERLING ENGINEERING & MFG. CO. (71)

Wilkes-Barre, Pa.

Features stainless-steel self-stacking shell and tube boards, self-stacking bobbins, and a general line of yarn-handling equipment.

Representative at booth:
George McGee

STEWART-WARNER CORP. ALEMITE DIV. (508, 509)

1826 Diversey Parkway, Chicago, Ill.

STOP-MOTION DEVICES CORP. (106 to 109, 107A)

1471 Fulton St., Brooklyn, N. Y.

Features electric stop motions for all types of knitting machines, including electric safety controllers, electric needle-protectors, hole and press-off detectors, running knot and slub detectors, Sentinel press-off detectors, and rubber-yarn end detectors.

Representatives at booth:
F. Weston
N. J. Tellerman
E. Vossen
J. M. Tolces
G. F. Connors
V. Chaplin

SUN OIL CO. (24A, 31A)

Philadelphia, Pa.

Features textile lubricants.

SUPREME KNITTING MACHINE CO., INC. (219 to 221, 234 to 236)

105 Jackson Ave., Brooklyn, N. Y.

Features new model-SR circular rib knitters; model SA-AF pattern placer and automatic variable striper; and model-MJ circular jersey machine for high-speed production.

Representatives at booth:
Sidney Mishcon
Lester Mishcon
Irving Golden
Clyde Depuis
Leonard Maurer
D. Depuis
J. Teitelbaum

SYNTHANE CORP. (200 to 202)

River Rd., Oaks, Pa.

Features laminated plastic sheets, rods, tubes, and molded-macerated and molded-laminated parts for textile products such as precision bobbins, pirns, bobbin caps, redraw caps, pirn caps, hosiery-examining forms, etc., both standard and custom-made.

Representatives at booth:
R. R. Titus
Herbert Widdop
E. E. Smith
J. K. Johnson
R. B. Galloway
C. B. Moss
F. C. Nave

Knitting Arts Exhibition
to be held in the
Atlantic City Auditorium
Atlantic City, N. J.
from April thirtieth to May fourth
Nineteen hundred and fifty-one

Frudaucka Bogu
President

For more information, write direct or use Reader Service post card.

SYNTHETIC YARNS, INC. (278 to 280)

Lowell, Mass.

Reception booth.

Representatives at booth:
J. Leo Power
C. R. Steedman

G. H. TENNANT CO. (62A, 62B)

2530 No. Second St., Minneapolis 11, Minn.

Features reconditioning and floor - maintenance machines, including high - speed floor - cleaning machines, power sweepers, new scissors-type V-mops, and anchored-finish floor coatings.

Representatives at booth:
Orville C. Hognander
George D. Billings
Patrick Manfra
Walter Boyer
Robert Guthrie
Jack Thorsen
Warner Emerson
A. H. Jackson
Hill Trube

A. M. TENNEY ASSOCIATES, INC. (286)

10 E. 40th St., New York 16, N. Y.

Features Eastman estron yarns.

Representatives at booth:
Archer E. D. Booker
Alan A. Clow
William T. Cummins
Ray W. Greene
Garrison C. King
Richard W. Leswing
Frank J. Ruddock
Herman L. Waters
H. H. Whitman, Jr.

TEXTILE AGE (8)

381 Fourth Ave., New York, N. Y.

Features a textile publication.

TEXTILE INDUSTRIES (128)

806 Peachtree St., N.E., Atlanta, Ga.

Features a textile publication.

TEXTILE MACHINE WORKS (318 to 322, 343 to 347)

Reading, Pa.

Reception booth.

TEXTILE TRIMMING & BOARDING MACHINE CO., INC. (433, 434)

Front & Green Sts., Reading, Pa.

See Ginsberg Machine Co.

TEXTILE WORLD (85, 92)

330 W. 42nd St., New York, N. Y.

Features a textile publication.

Representatives at booth:
Edwin D. Fowle
Prentice M. Thomas
Richard C. Scott
W. A. Thomason
William Buxman
William B. Dall
J. C. White, Jr.
Arch W. Fisher
H. C. Harvey
Ralph Chisholm
C. Jean Haws

THREADS, INC. (505)

1270 Broadway, New York, N. Y.

TOMPKINS BROS. CO., INC. (454 to 456)

623 Oneida St., Syracuse, N. Y.

Features spring- and latch-needle machines.

Representative at booth:
W. A. Ingalls

THE TORRINGTON CO. (331 to 334)

Torrington, Conn.

Features knitting - machine needles, needle and roller bearings, rollers, and precision parts.

Representatives at booth:
W. R. Reid, Jr.
C. H. Rowe
L. W. Losee
W. W. Bielock
C. T. Spalding
W. C. Wiechardt
H. D. Blake
J. H. Lingley
C. R. Johnson
F. G. Stubbs

TUBULAR TEXTILE MACHINERY CORP. (89C, 89D)

33-61 54th St., Woodside, L. I., N. Y.

Features photographs and schematic drawings of Tube-Tex wet spread, extract, process, and dry; steam and calender; tensionless folding calender; and matching machines.

Representatives at booth:
Eugene Cohn
John Sasson
Don Foreman
Lee M. Rothenberg, Jr.
Daniel McE. Gold

TURBO MACHINE CO. (154 to 159)

Lansdale, Pa.

Features Turbo finish boarder for static-free stockings; a new model AD-48 for preboarding, finish boarding, or a combination of both; and a newly developed crimper for nylon or other synthetic fibers.

Representatives at booth:
H. W. Matthews
B. C. Hall
W. N. DeTurk
Francis Huguenin
Ward Bergey
Walter McCluen
Paul Wenhold
Ben Hammel
W. K. Wyatt
C. H. Smith

TURNER TRANSFER, INC. (526)

Box 175, Greensboro, N. C.

Features moving operations. Booth will serve as booking station for Turner airplane to be used to carry interested persons free-of-charge to Reading, Pa., to visit plants manufacturing hosiery machines.

Representatives at booth:
Guy M. Turner
Frank Turner
Lamar R. Jones

E. W. TWITCHELL, INC. (65, 66)

2801 No. Third St., Philadelphia 33, Pa.

Features decorative hosiery and other textile packagings of cellophane, acetate, velours, and light-weight tissues.

Representatives at booth:
W. F. Baker
Mr. Miller
R. H. Therrell
Mr. Russell

UNION CARBIDE & CARBON CORP. (CARBIDE & CARBON CHEMICALS DIV.) (513)

30 E. 42nd St., New York, N. Y.

Features dynel staple fiber, yarn, and knit goods.

Representatives at booth:
A. L. Snyder
R. C. King
T. P. Mulligan
R. K. Kennedy

UNION SPECIAL MACHINE CO. (323, 324, 341, 342, 348, 349, 366, 367)

400 No. Franklin St., Chicago, Ill.

Features Ped-E-Flo unit with three hosiery seamers and an examining table; a single-needle plain-feed lockstitch machine for sewing light-weight materials, and a two-needle compound-feed machine for miscellaneous operations on heavier garments; flat-bed machines for attaching trim to knitted garments; and machines for seaming knitted garments.

Representatives at booth:
A. J. Feigel
L. M. Brown
M. L. Cook
M. F. Groover
B. W. Murr
J. H. Muir
C. L. Rosenquist
W. E. Price
L. D. Cassell
L. J. Perrin
C. D. Mairs
R. B. Foster
W. Denholm

UNITED KNITTING MACHINE CO. (63, 64)

2734 No. Second St., Philadelphia 33, Pa.

Features attachments and parts for full-fashioned hosiery machines, including needle-shaft and carrier-rod take-up bearings, friction-disk adjusters, and new looper clip blower and examining tables.

Representatives at booth:
Frank G. Weisbecker
Willard G. Moyer
James De Stephen

U. S. RUBBER CO. (LASTEX DIV.) (299, 300, 305, 306)

1230 Avenue of the Americas, New York, N. Y.

Features Lastex and Laton elastic yarns and fabrics.

Representatives at booth:
T. E. Parks, Jr.
W. J. Connelly
A. R. Engel
P. L. Westphal
R. H. Ostrander
H. A. McKee
P. Linke

U. S. RUBBER CO. (TEXTILE DIV.) (459, 460)

1230 Avenue of the Americas, New York 20, N. Y.

Features cotton yarns.

Representatives at booth:
John W. Solomon, Jr.
V. C. McQuiddy, Jr.
Henry E. Anderson
Hubert O. Fry
John H. Shaw
William H. Bric, Jr.
Frank C. Hopkins
Robert J. Keane

UNITED STATES TESTING CO. (362, 363)

1415 Park Ave., Hoboken, N. J.

Features information on newly enlarged testing and research facilities. A new attachment for the U. S. Testing Co. twist tester, designed specifically to determine the number of tpi. in monofilament yarns, will be on display.

Representatives at booth:
E. H. Winkleman
E. Donohue

U. S. TEXTILE MACHINE CO. (93 to 98)

411 Gilligan St., Scranton, Pa.

Features throwing equipment.

Representatives at booth:
A. W. Thomas
P. J. Thomas
A. W. Thomas, Jr.
N. F. Gubitose
Russell Williams

UNIVERSAL WINDING CO. (130 to 135)

Providence, R. I.

Features No.-50 precision winding machines with pine-apple and straight-based coning, tubing and emulsion attachments; the Roto-Coner with coning attachments to produce different tapers of cones in use and new ball-bearing spindles for tubing; and the Unirail uptwister equipped for bobbin and headless-package take-up.

Representatives at booth:
Robert Leeson
Edward O. Smith
Paul P. Johnson
Winthrop S. Warren
Thomas L. Cotter
William L. Paulhamous
Frank P. Barrie
William J. Quinn
John Breen

UTICA NOVELTY & MILL SPECIALTY CO. (80 to 82)

2145 Dwyer Ave., Utica 2, N. Y.

Features combination roll winder and strip cutter, laying-up machines for tubular knitted fabrics, and collarette cutting and winding machines with roll attachment.

Representatives at booth:
J. A. Firsching, Jr.
Donald Firsching

VALDESE MFG. CO. (47, 48)

Valdese, N. C.

Features dyed cotton yarns.

Representatives at booth:
E. M. Spencer
L. P. Guigou
H. M. Boshamer
Herbert Smith
Tom Moore

VEEDER-ROOT, INC. (265)

70 Sargent St., Hartford 2, Conn.

Features two- and three-shift-revolution counters for production recording; mechanical, electrical, pre - determining, and yardage counters.

Representatives at booth:
W. R. Soderquist
F. J. Swords
W. T. Heydt
J. H. Yost
R. E. Walker
G. L. Logan

SUN INTRODUCES—a special oil for needles, sinkers, and related parts of knitting equipment!

SUNOTEX MACHINE OIL LIGHT

Knitters get four major advantages from this oil!

1. NON-STAINING Aging tests run by independent laboratories prove that the new Sunotex Machine Oil *Light* has non-staining quality equal to the best textile processing oils.

2. COMPLETE SCOURABILITY Tests made in mills, following routine scouring methods, reveal that the new Sunotex Machine Oil *Light* scours out completely from all fabrics.

3. REDUCED WEAR The new Sunotex Machine Oil *Light* protects needles at the critical point of presser contact. Its extreme pressure characteristics and low coefficient of friction allow maximum needle life, with minimum expense for parts replacement.

4. RUST PREVENTION The new Sunotex Machine Oil *Light* definitely prevents rusting and prolongs equipment life. Special metal-wetting components remove moisture, replace it with a protective film, and assure positive lubrication even under high humidity conditions.

In addition, Sunotex Machine Oil *Light* gives outstanding performance on textile equipment other than knitting machines, where an oil of light viscosity is required—on the rings and travelers, for example, of spinning, twister and roving frames. For further information, or the services of a Sun representative, just call or write the nearest Sun Office.

SEE FOR YOURSELF
Black Light Test... *PROOF of Scourability*
Humidity Cabinet Test Results... *PROOF of Rust Prevention*
Knitting Arts Exhibition
Atlantic City, N.J.
Booth 31A-24A

SUN INDUSTRIAL PRODUCTS SUNOCO®

SUN OIL COMPANY, PHILADELPHIA 3, PA. • SUN OIL COMPANY, LTD., TORONTO AND MONTREAL

VENANGO ENGINEERING CO., INC. (256, 257, 272, 273)
G. & Lycoming Sts., Philadelphia, Pa.
Features dyeing equipment.
Representatives at booth:
C. Harry McCandless
A. Robertson

VICTOR RING TRAVELER CO. (510, 511)
20 Mathewson St., Providence, R. I.
Reception booth.
Representatives at booth:
E. R. Jerome
Byron H. Waterman
Elmer H. Connor

WALTON LABORATORIES, INC. (463 to 465)
1186 Grove St., Irvington, N. J.
Features humidifiers.
Representatives at booth:
William Feldermann
John B. Feldermann
J. R. Lewis
B. W. Dickinson
Charles Bourgeois

WAUKESHA FOUNDRY CO. (181 to 183)
Lincoln Ave., Waukesha, Wis.
Features stainless-steel and nickel-alloy castings in rough, polished, and partly machined state. New Shift-Speed pump units and O-Ring seals will also be shown.
Representatives at booth:
Emil M. Howe
Richard R. Watt
Clyde Monda
Charles E. Schick

WESTINGHOUSE ELECTRIC CORP. (260 to 264)
511 Wood St., Pittsburgh 30, Pa.
Features type-AV packaged adjustable-speed drive with selenium rectifier exciter for full-fashioned hosiery machines; Life-line motors, including open, drip-proof type, screened type, and rayon-twister type; starters with lint-tight enclosures; new manual textile starter; Micarta industrial laminate for textile applications; and industrial lighting for the textile industry.
Representative at booth:
C. P. Walker

WHITIN MACHINE WORKS (414, 414A, 415, 415A, 440, 441, 452, 453)
Whitinsville, Mass.
Features new model-C2 tricot knitting machine with re-designed cloth take-up and yarn let-off motion.
Representatives at booth:
Harry Moss
R. F. Waters
Charles May
G. F. McRoberts

WILDMAN MFG. CO. (136 to 141)
Astor & Elm Sts., Norristown, Pa.
Features circular and full-fashioned machines.
Representatives at booth:
Kenneth Howie
F. E. Paul
John Hill
Jefferson Craig
Leon Bickel
LeRoy Brooks
Kirkland Howie

How to Cover the Show

Mill men have found out at previous Knitting Arts Exhibitions that you can't cover a textile show of that size in a day, or even two days, or even a week if every booth were to be visited carefully. But it helps if you organize your visiting. The editors of TEXTILE WORLD use a definite method for covering a show, and several mills, including Bigelow-Sanford Carpet Co., used a similar method at the Atlantic City show last year.

The secret is to decide ahead of time what you want to see. Start with the TEXTILE WORLD Guide to Exhibitors.

If you're an individual, read over the list of equipment to be shown at each booth, and check off those exhibits you especially want to visit. The guide stresses the new equipment each exhibitor plans to show for the first time; and if the equipment is in your field, that booth is a *must*. Use the floor plan of the show to visit booths in various areas. This plan can save a lot of running back and forth.

If your mill is sending a group, get the group together and go through the guide booth by booth. Decide what man or men should be assigned to cover each booth, and see that each man understands what his booth assignments are. Then, to make the show coverage as effective as possible, ask each man to turn in a report on his booths. Then circulate copies of the collected reports to all key people in your mill.

When all booths are covered, check over the cross-indexed listing in the guide of equipment by types to be sure you haven't missed any exhibits.

If, after covering your booths, you still have some time left, then by all means start a systematic visitation to every booth in the show. You can't fail to get some ideas for your department or for the mill as a whole by doing so. One mill engineer once told a TEXTILE WORLD editor, "I could go through a soap factory and still get some ideas for use in our woolen mill." The same thing goes for exhibits at a textile show – except the opportunities are even greater.

The show offers an unparalleled opportunity for comparison of similar equipment offered by several manufacturers.

The show also offers a splendid opportunity to build up your technical library with catalogs and technical manuals offered by manufacturers. These booklets are of extreme value in furnishing up-to-date information on a manufacturer's equipment – information you simply can't find in books.

The TEXTILE WORLD booth will have available free envelopes of heavy paper for show visitors. Be sure to pick up one of these "briefcases" and fill it up. There'll also be extra free reprints of the Show Guide at the TEXTILE WORLD booth in case you left your April issue at home, or if you would like a guide in more convenient, compact form.

Be sure, also, to check the advertisements accompanying the guide – they can tell you much about what exhibitors are showing and what some of the features of the equipment are.

If you're going to Atlantic City – cover the show systematically to get the most out of it. If you're not going—see the report of the show that will be in the June issue of TEXTILE WORLD.

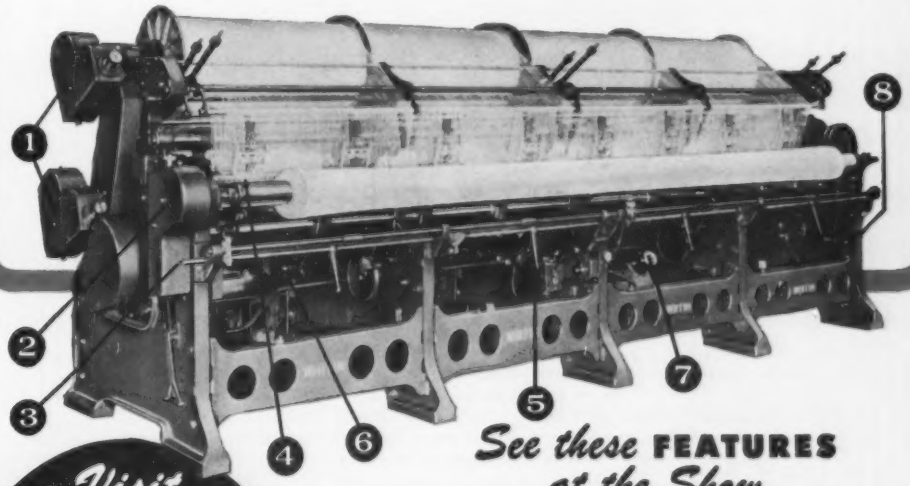
NOW you can INCREASE PRODUCTION • IMPROVE QUALITY • REDUCE COSTS

With today's WHITIN Model "C2" High-Speed Tricot Knitting Machine

New units of ingenious design for the cloth take-up and yarn let-off motions, now combined with many other tested and desirable features, make the Model "C2" the most efficient Tricot Knitting Machine in production today.

These two units employ a unique and clever hydraulic drive arrangement with constant feed mechanism to overcome uneven tension and shade marks, as well as permitting greater control over cloth quality through simple micrometer-type adjusting dials.

On numerous installations these units have proven themselves greatly superior to any mechanical cloth and yarn control devices previously available.



Visit
BOOTHS
414A 414 440 452
415A 415 441 453
KNITTING ARTS EXHIBITION
Atlantic City Auditorium
April 30 - May 4

See these **FEATURES** *at the Show*

1. Yarn let-off motions
2. Cloth take-up motion
3. Quick stop control
4. Butted needle bars (optional equipment)
5. Electrical inching device
6. Large diameter bakelite cam followers
7. Center mounted tachometer and rack counter
8. Needle-in-down-position stop unit

Write us today for our descriptive folder giving complete details and technical data

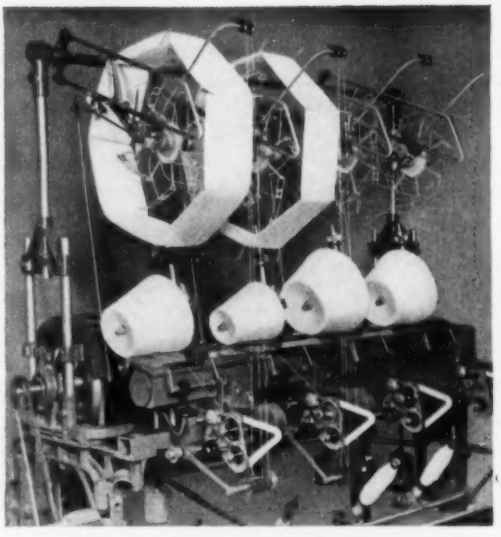
Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

For more information, write direct or use Reader Service post card.

Schweiter



THE SCHWEITER KM CONE WINDER

Designed especially for the knitting industry, the new Schweiter KM Cone Winder consists of a variable number of individual units, each a self-contained winder, individually driven — each waxing and winding in the same operation from either bobbins or skeins. Speed changes can be effected quickly for efficient winding from all types of yarn packages, and pressure against the cone may be adjusted according to the delicacy of the yarn being wound. Here's the precision cone winder you've been looking for . . . the formula for perfect cone production at low operating cost.

See the KM Cone Winder in operation at:

INTERNATIONAL TEXTILE EXPOSITION • LILLE, FRANCE • APRIL 28 - MAY 20
KNITTING ARTS EXHIBITION • ATLANTIC CITY, N. J. • APRIL 30 - MAY 4

SCHWEITER LTD

HORGEN (Zurich) Switzerland

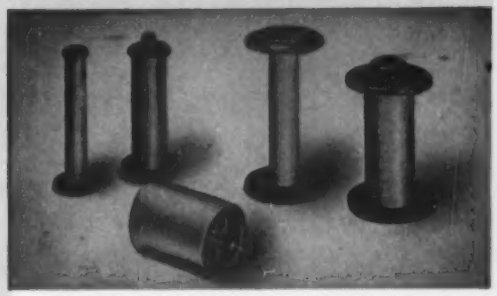
Sole Agents for the United States and Canada

AMERICAN SCHWEITER COMPANY • WHITINSVILLE, MASS.

SYNTHANE S –the Material to Speed Textile Processes

SYNTHANE TEXTILE ROLLERS

Furnisher rolls, warp beam rolls and measuring rolls made from Synthane do not absorb moisture or dyes, hence are quickly and easily cleaned. They are light in weight, easy to handle, unaffected by oils or dye chemicals, and they resist wear. We can supply rollers accurately dimensioned to your needs, without metal cores where light weight is important, or Synthane may be laminated over cores for more strength.

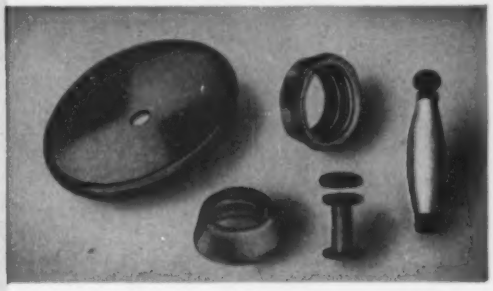


BOBBINS AND PIRNS

Synthane has many advantages as a material for bobbins and pirns. Synthane bobbins and pirns are hard, dense, smooth, dimensionally stable, moisture resistant, non-staining, light in weight, and they come machined to precise dimensions for perfect balance. They help attain increased spindle speeds, improved quality of finished yarns and lowered maintenance costs.

SYNTHANE TURNING AND EXAMINING FORMS

Synthane is smooth and stays smooth, will not snag or pull the finest denier yarns. Synthane forms are solid black throughout; the color cannot wear off. The dull finish is easy on inspectors' eyes, quickly shows up even the smallest defect. Synthane Turning and Inspection Form shown in center is latest, and one of most popular, forms. Note deep groove in which stocking rides during turning operation to prevent contact with the heavy welt yarns in the stocking top. Eliminates picks or pulls. Permits turning of the stocking before inspection instead of after. Also available with oval-shaped hole at toe end to facilitate turning.



NON-SNAGGING REDRAW CAPS

Synthane redraw caps are available in all types and dimensions. They are smooth, have no sharp corners, can't snag.

Bobbin type are low in cost, prevent damage to yarn, rehabilitate damaged bobbin heads. We will send you undimensioned drawings which you can mark to suit your needs. Write for them.

Pirn type permit drawing from wooden or paper pirns from any position without snagging. They may be used on bottom of pirn to prevent snagging from splinters on worn T-slots. Made in two sizes to fit a wide range of pirn types and sizes. Snap ring locks cap firmly in position.

SYNTHANE ALSO MANUFACTURES

- *caps for sizing bobbins*
- *rayon cake holders*
- *traverse slides*
- *redraw checks*
- *hosiery sizing forms*
- *drier pole rests*
- *balloon separators*
- *redraw tubes*
- *finger inserts*
- *hosiery mending cups*
- *bobbin bushings*
- *verge plates*
- *macerated gears and gear blanks*
- *spindle bushings*
- *spindle adapter tubes*
- *redraw caps for nylon slipping pirns*
- *hosiery carrying boards*
- *hosiery examining forms*

Textile Division
SYNTHANE CORPORATION
SYNTHANE S
OAKS, PENNSYLVANIA

DESIGN • MATERIALS • FABRICATION • SHEETS • RODS • TUBES
FABRICATED PARTS • MOLDED-MACERATED • MOLDED-LAMINATED

Please let me have further information on the products checked above

Name_____

Company_____

Address_____

City_____ Zone_____ State_____

FABRIC begins with an—

and

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

FOR NYLON...FOR RAYON

the "F" turns out to be FIBER!

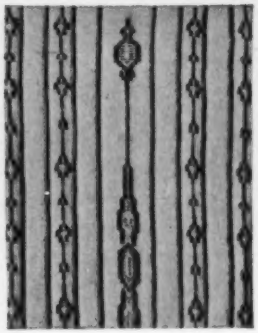
Funny thing about a fabric . . .
Somebody has to think it up,
Somebody has to say it's good,
Somebody has to produce it,
Somebody has to find a fiber.

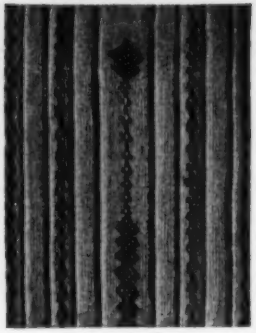
For quality fibers . . .
fibers that have found their way into exciting, talked-about fabrics,
fibers that have kept those fabrics sound . . .

Du Pont **nylon**
Du Pont **acetate rayon**
Du Pont **viscose rayon** are the beginnings
of the fabrics and fashions of tomorrow.

And Du Pont is looking ahead to fibers
that will make tomorrow's fashions
even more exciting, wearable, long-livable!

...FOR FIBERS TO COME...LOOK TO DU PONT!

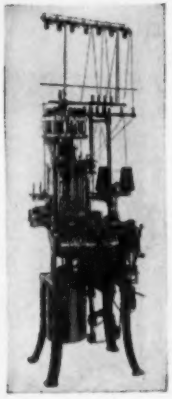




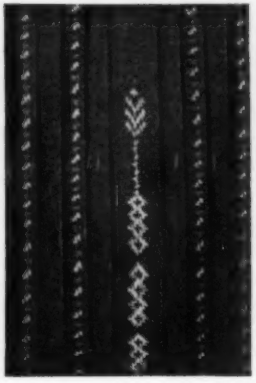
You'll Build New Accounts with Low-Cost High Quality Hosiery

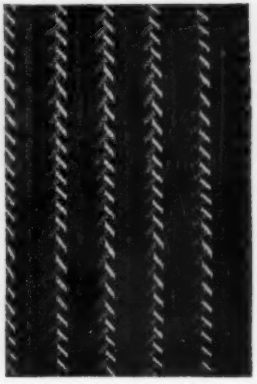
produced in One Operation

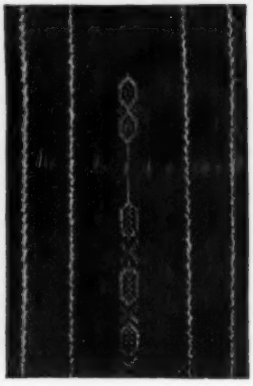
WITH THE S & W KOMET WRAP MACHINE



A few of the many possibilities of the modern S&W Komet Wrap Machine.







A significant development in hosiery machine design, the S&W Komet knits true-wrap broad ribbed half-hose and slacks, with color-in-color-and-beside-color effects *all around the stocking*. No need for slow and expensive hand embroidery or Swiss clocking machines.

The S&W Komet Wrap Machine employs as many as twenty different wrap yarns, and each yarn can wrap from one to twelve needles. Wrap yarn costs and knitting costs per dozen are thus substantially reduced!

Put new pattern and color interest into *your* broad ribbed hosiery with the S&W Komet Wrap Machine!

Consult your S&W representative for details.

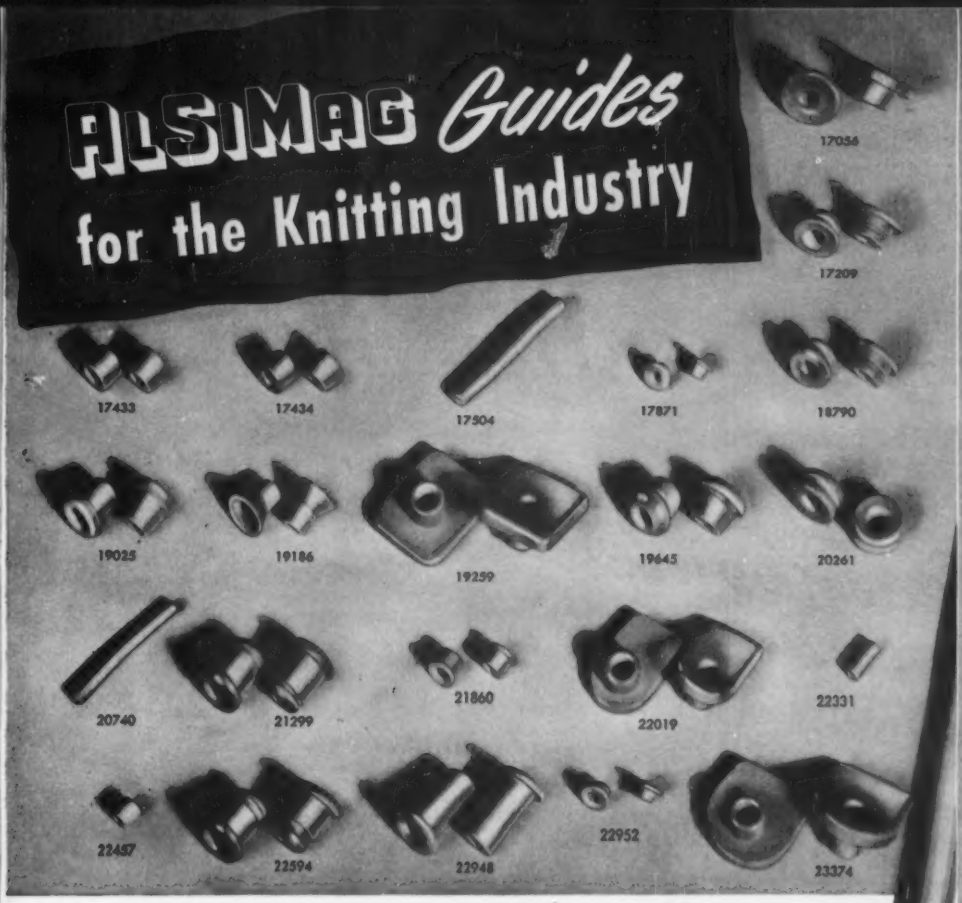
S:W **SCOTT & WILLIAMS, INC.**

Established 1865

MAIN OFFICE AND PLANTS: LACONIA, NEW HAMPSHIRE

Sales Office: Empire State Building, New York 1, N. Y. • *Divisional Sales Offices:* High Point, North Carolina; Reading, Pennsylvania; Chattanooga, Tennessee

ALSIMAG *Guides* for the Knitting Industry



USES

- Yarn Box Eyelets
- Trough Eyelets
- Snapper Eyelets—Tapered, Shouldered, Plate, Grooved
- Oil Cup Eyelets
- Stop Motion Eyelets and Inserts
- Carrier Tubes
- Trough Rods
- Tension Rods
- Tension Rings
- Drop Wire Rings
- Miscellaneous Guides for Special Purposes; for example: inserts for fixtures on Trough Floats

ADVANTAGES

1. *Quality.* Smooth, homogeneous material of great hardness. Uniform physically and dimensionally.
2. *Long Life.* Test these guides on finer denier synthetic yarns at high speed and high tensions. In every case reported to us, AlSiMag guides have shown a material improvement over any former guides used.
3. *Fewer Replacements.*
4. *Uniformity* of guides makes for uniform high quality in finished products.
5. *Lighter Tensions.* AlSiMag guides are available in controlled finishes.
6. *Electrically Conductive* guides (AlSiMag 193) are available to aid in the control of static.

TEST SAMPLES SENT ON REQUEST.

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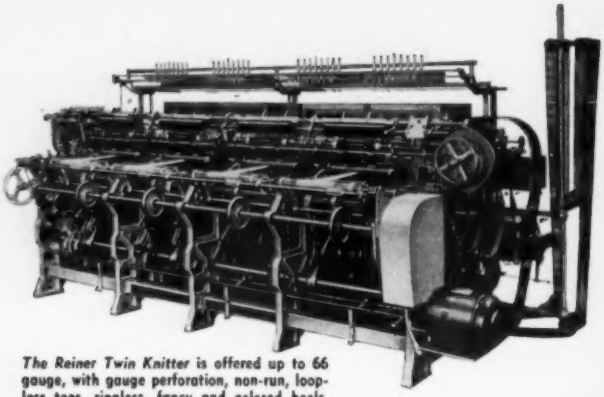
NEW ENGLAND, 38-B Brattle St., Cambridge, Mass., Kirkland 7-4498 • ST. LOUIS, 1123 Washington Ave., Garfield 4959



The Reiner Twin Knitter is offered up to 66 gauge, with gauge perforation, non-run, loopless toes, ringless, fancy and colored heels, 15 inch needle bars, and other features. A sturdy, fast producer, fully automatic, suitable for any production system, any climate.

Old and new friends are assured a hearty welcome at the REINER BOOTH
No. 16~23B
KNITTING ARTS EXHIBITION
ATLANTIC CITY
APRIL 30 TO MAY 4

THE *Reiner* LINE

- Tricot Machines
- Simplex Machines
- Raschel Machines
- Kaylooms
- Full Width and Sectional Warpers
- Magazine Creels
- Single Type Creels
- Truck Creels
- Heavy Duty Creels
- 4-Section Full Fashioned Hosiery Machines —up to 66 gauge
- Automatic Schiffli Embroidery Machines—10 and 15 yards
- Bobbin Winding Machines—for quilting and stitching

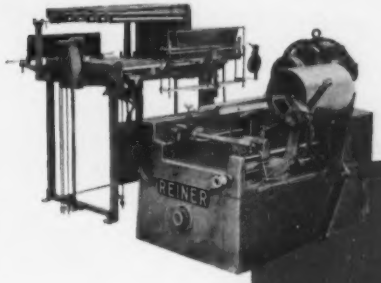
Reliable Spare Parts Service for all Reiner equipment now installed.

The Knitting Arts Exhibitions are milestones in the development of knitting machinery and accessories. Hence, we all come back to Atlantic City to show what has been accomplished since we parted.

Robert Reiner, Incorporated proudly state that Reiner machines have widened their reputation for quality, economy, ruggedness and speed. All over the world "Reiners" are meeting the most exacting mill demands in round-the-clock operation producing warp knit fabrics and up to 66 gauge full fashioned hosiery of truly fine quality. Renowned brands are depending upon "Reiners" for their reputation, knowing that quality begins with the machines producing it.

Our development engineers are forever striving for machine improvements. They are in close touch with mills, their problems, and requirements. Hence, Reiner equipment is the practical answer to mill needs. It is built with utmost care by craftsmen who take pride in their work. In short, you are buying quality plus mill-tested performance when you buy Reiner.

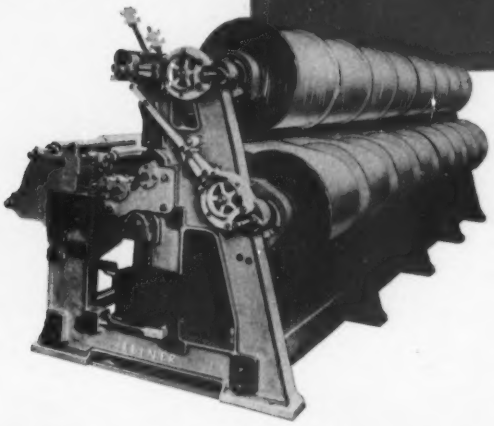
The Reiner SW-24 Warpers are team mates of Reiner Creels and Warp Knit Machines—preferred by many mills. Spools up to 24" in length—flange diameter up to 24". Adaptable to multiple spools for narrow fabrics. Reiner offers all sizes of warpers including full width, light and heavy duty models.



Reiner Magazine Creels are favorites in many mills. They feature various stop motions, tension devices, balloon control. Suitable for all types of yarns and packages, including nylon pirns. Other Reiner Creels are Truck, Single Type, Heavy Duty, or to your specifications.

See them in ACTION at the Knitting Arts Exhibition!

The Reiner High Speed Tricot Machine is fast, reliable, economical, and versatile. Offered with the latest features including 2 and 3 bar and heavy duty, coarse gauge models. An unexcelled producer in many quality mills.



...we offer a complete line of ...itting machines. This fact en... ...ur entire mill equipment from one source, an advantage that will prove profitable in matters of production, servicing and care.

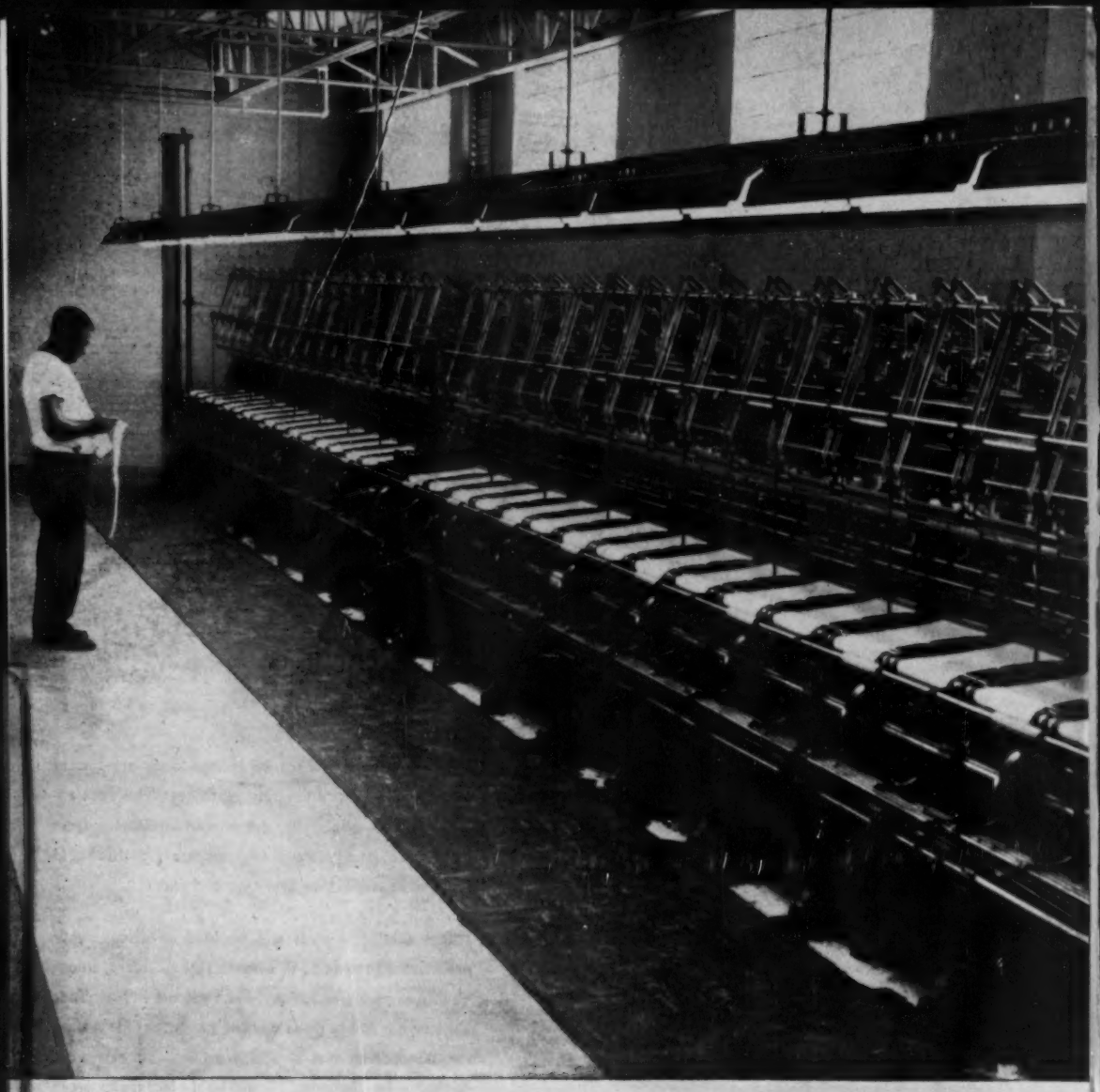
Our exhibition staff will be glad to discuss your problems with you and to demonstrate "Reiners" in action. And please remember, when you are in New York City, do not fail to come and see us. It takes less than ten minutes by bus to reach us via the new Port Authority Bus Terminal. It will be a pleasure to greet you at the show or in Weehawken!

FOUNDED IN 1903

ROBERT REINER INC.

550-564 GREGORY AVENUE
WEEHAWKEN, NEW JERSEY

10 MINUTES FROM TIMES SQUARE. Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE UNION Z-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882



NEW FULL-FASHIONED HOSIERY MACHINE DRIVE CONSISTS OF...

D-C DRIVE MOTOR is a member of the famous lubricated-for-life Life-Line series. Sealed bearings, rolled steel frame and other features greatly reduce upkeep and increase motor life.

STURDY CABINET contains control equipment and M-G set which supplies d-c power to the drive motor. Floor-mounted, pre-wired, packaged construction makes for easy hookup to either new or existing machines.

SPECIAL PUSHBUTTON makes drive operation easy. For threading speed, the start button is pushed in halfway. Pushing it in all the way brings the drive swiftly and smoothly to full operating speed.

This New Knitting Drive saves maintenance; makes fast, accurate speed changes

Check the features of this new drive for full-fashioned hosiery machines. It's built on advanced design principles that cut maintenance costs to the bone and give you smoother and quieter operation than previous drives.

No tube replacement—There are no tubes to burn out in this new drive—and no rotating exciter either. Field current for the drive motor and M-G set is supplied by the new Westinghouse *Selenium* exciter—a simple, plate-type device with no moving parts . . . nothing to maintain.

Smooth-running M-G set—The M-G set that supplies d-c power to drive motor is dynamically balanced. This greatly reduces vibration. It cuts bearing wear, saves maintenance all around.

Drive needs no lubrication—The drive motor and M-G set are members of the famous Life-Line series. Their pre-lubricated bearings cut bearing failures and do away with lubrication costs. They've been mill-proved by more than twelve years of trouble-free service in the Textile Industry.

Fast—accurate speed change—This drive automatically makes fast, smooth speed changes. It moves quickly and accurately to the new speeds when the knitting machine calls for them, without overshooting. It accelerates by M-G field build-up, NOT motor field. It decelerates electrically—by regenerative braking. This eliminates sluggish action, raises production quantity and quality.

Get more information—This new drive can be used on most full-fashioned machines. Call your Westinghouse representative for more information about applying them to your present equipment . . . and be sure to investigate them carefully when you're buying new machines.

Call Westinghouse early on EVERY job

This Knitting Drive is typical of the superior performance you get from *all* Westinghouse apparatus. On every job that calls for electrical equipment, call Westinghouse early. J-94875

YOU CAN BE **SURE**.. IF IT'S

Westinghouse

EQUIPMENT FOR TEXTILE PRODUCTION

SEE THIS NEW DRIVE AT THE KNITTING ARTS SHOW NEXT MONTH.

PRODUCTION
More yards per hour, based on actual day by day mill operation.

NEW
Stationary yarn table with inserted wall revolving cylinder and dial.

ACCESSIBILITY
Saves time and money because all parts are within quick, easy reach.

MODERN
Complete push-button control. Jogging control. Single space-saving horizontal hand wheel permitting precision movement of cylinder.

ACCURACY
Simple precision vertical micromatic adjustments for dial . . . movement accurate in units of thousandths of an inch. Positive stitch adjustment.

PRECISION
Gear-driven dial.

VERSATILITY
Dial and cylinder swing cams allow placing dial needles and cylinder needles at welt position permitting hookup at entire width of feed. Individual motor drive with magnetic noiseless clutch. Machines furnished either with positive take-up and reel or revolving container.

NOVEL
Hinged carriers—Positive dogless construction. Time-tested.

BETTER FABRIC
Multiple feeds arranged for maximum perfect fabric with minimum strain on needle advance.

QUALITY
Perfect stitch formation assuring smoother fabric with inherent rib elasticity. All cam ring sections alloy compound, fine grain iron.

DURABILITY
All cams in both cylinder and dial heat-treated under instrument control . . . individually tested for correct hardness.

SELECTION
Available in diameters from 8 inches to 26 inches, in increments of 1 inch either plain or automatic, 1 by 1 or 2 by 2.

NOW Brinton offers you your choice of stationary or revolving cylinder rib body machines. Each type of machine has features of merit. . . . You now have your choice with one thing in common:

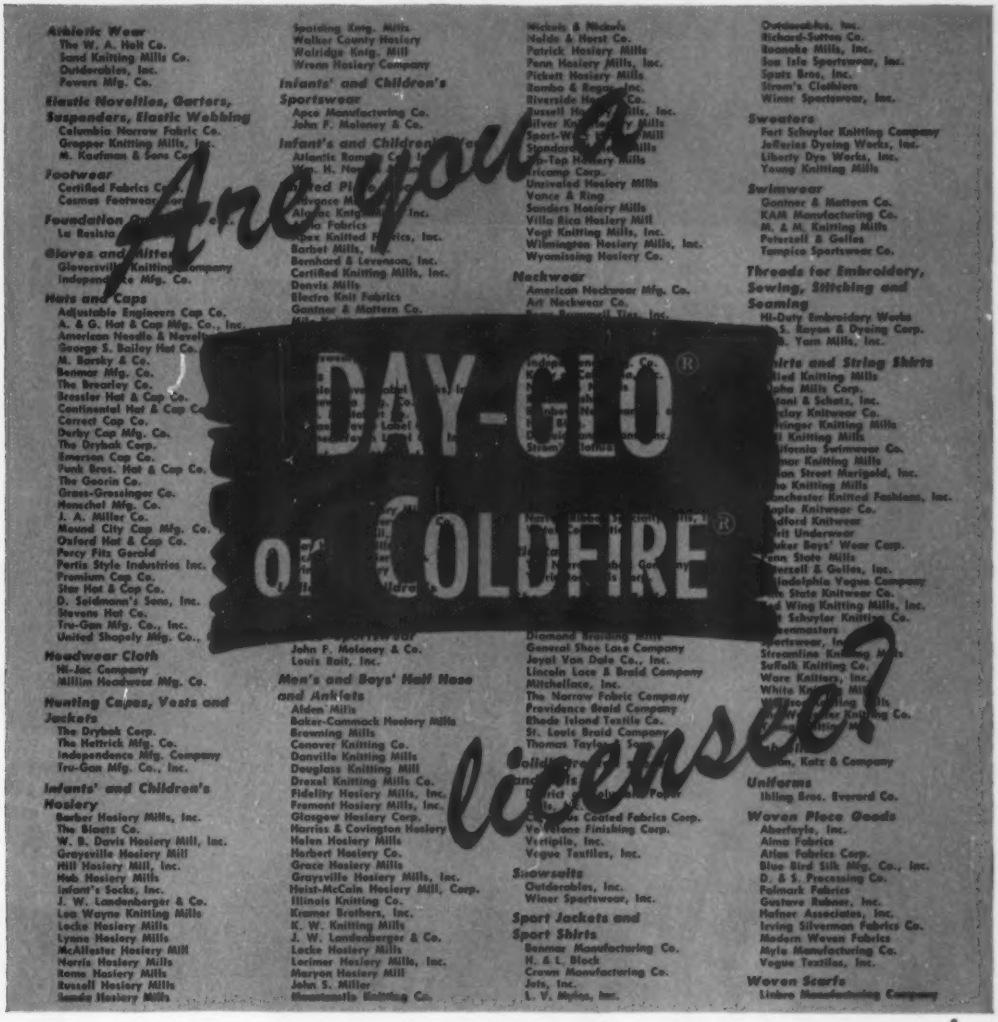
More Than 62 Years of Know-How

Your assurance of top quality manufacture is the engineering ability, the production experience, the mechanical knowledge and skilled craftsmanship that have gone into the making of Brinton Circular Knitting Machines since 1888.

BRINTON
CIRCULAR KNITTING MACHINES

KENSINGTON AVE. & M ST., PHILA. 24, PA., U. S. A.

As a protection for retailers and their customers Day-Glo yarns may be used only by licensed manufacturers. This Day-Glo licensing program is based on recognition of the fact that daylight fluorescent articles retain their brilliant colors only when properly manufactured with careful regard for the intended use. The following companies are now licensed users of Day-Glo or Coldfire yarns. We will be glad to discuss it with you. Talk it over with us at the Knitting Arts Exhibition, Atlantic City—April 30-May 4—Booths 325, 326, 339, 340, 350, 351.



. . . . The above Firms are!

ESTABLISHED 1882
Aberfoyle
Durene
AMERICA'S OLDEST MERCERIZERS
ABERFOYLE MANUFACTURING COMPANY
123 South Broad Street, Philadelphia 9, Pa.
Belmont, North Carolina
PRODUCERS & SUPPLIERS OF
NEOFIL
Day-Glo®
COLDFIRE®
Wearwirst
Fibrofoyle®
NyFoyle
Durene
ABERFOYLE DURENE—"MERCERIZED COTTON YARN AT ITS BEST"

SUPREME opens the door to...

HERE IS THE
NEW SUPREME RIB
PRODUCTION STAR—
The MODEL SR

This 7"—10 Feed Machine is similar to the New Ribbers you will see at Atlantic City.

SEE THE NEW SUPREME SR RIB MACHINE AT THE KNITTING ARTS EXHIBITION ATLANTIC CITY, APRIL 30th-MAY 4th. OR ASK FOR FACTORY PREVIEW.

This ad tells only part of the story. You'll see additional important technical developments when the Model SR is unveiled at Atlantic City. Knitters who want a preview can get it by making an appointment to see the new machine at the Supreme plant, right now.

SUPREME
KNITTING MACHINE CO., INC.
107 JOHNSON AVE., BROOKLYN 6, NEW YORK, N. Y.

BETTER PRODUCTION OF RIB CLOTH

SUPREME KM Co

Knitting News

SUPREME ANNOUNCES NEW SUPER-RIBBER

New Supreme Ribber Utilizes Latest Technical Advances To Give Tremendous Production And Quality Bonus

Before buying his next machine, the ribbed cloth knitter should see how Supreme's new Model SR will improve quality and increase production. Some of the design features and exclusive knitting advantages that can be revealed prior to the showing are listed below.

1. Single action, micromatic, dial-elevating and lowering adjustment gives accurate and uniform stitch adjustment at the flip of a finger. Knit as tight or loose a stitch as desired.

2. Sturdy, dogless, tripod construction eliminates pinch lines and insures alignment of all elements. Simplified, instantaneous synchronization of dial to cylinder needles.

3. An exclusive, new, simple method for speedily converting from plain to swiss rib.

4. Individual, channeled cams lock needles in proper position and eliminate smash-ups. Knitter can remove a section and replace it without having to realign needles by hand. Thickness of cams provides large bearing surface for long wear, easier cleaning and less accumulation of dirt.

5. Large open areas around cylinder and dial assure easy cleaning, inspection and maintenance. Greater space between knitting feeds allows easy access to cloth and needles at knitting level.

6. The SR knits a wide range and variety of yarns with uniform quality and a minimum of adjustments. Weak or slubbed yarns will not cause damages or interrupt production.

7. Produces cloth of high elasticity. This assures better shape retention after processing and washings.

8. Automatic control stops machine when predetermined roll size is completed.

9. Roller bearing thrust for entire center drive. Overhead gear-driven dial with center spindle of special alloy steel, hardened and ground.

The new Supreme Model SR will be available in sizes ranging from 7" diameter—10 feeds to 30" diameter—44 feeds.

Two of the many types of ribbed fabric for underwear or outerwear that can be produced on the Model SR.

SUPREME'S PROVEN-IN-USE FEATURES HELP GIVE NEW RIBBER 32 YD. PER HR. OUTPUT AT 100% EFFICIENCY

Supreme's entirely new line of high-speed circular rib knitting machines includes many of the revolutionary production-improving features which have made Supreme's circular jersey machines so successful.

These production-boosting features include:

● *Stationary Yarn Stand*—Permits greater RPM of the cylinder, dial and knitting elements system; lets the knitter use double cone system with "pigtail" double tieups. Assures faster stopping and starting . . . greater safety and efficiency.

● *Revolving, Floating Take-Up and Roll-Up*—Interwinding, roller-bearing supported. Uniform tension assures large, even and compact cloth rolls. Independent support prevents wear on cylinder and outer ring.

● *Unit Motor Drive*—Rugged, smooth-running. Patented multi-disc clutch gives almost instant start and stop. No slippage. Smooth, silent chain drive unaffected by lint or dust.

The flyers illustrated above represent but a small part of the many types designed and produced by the Herr Manufacturing Co. Inc. We construct flyers for EVERY mill requirement and our flyers are handling every type of yarn, from the finest of hosiery yarns to tire cord. If you have a problem involving a special bobbin, a special spindle, or an unusual yarn, we can design a flyer to fit your particular circumstances.

Every Herr flyer is perfectly balanced to assure accurate yarn control. Durable construction and light weight permit high operating speeds. Flyer wires are installed in such a way that they are firmly held and remain permanently in their original positions. Vibration is thus substantially reduced, and uniformity of yarn tension is correspondingly increased. Cleaning and rewiring is reduced to a minimum.

The eccentric, or bearing part of the flyer, is constructed of nylon and requires no lubrication. It can be had in many colors. The latter feature is especially useful for identifying lots and counts of yarns, also for keeping flyers separated by types and spindle sizes and for maintaining flyer wire changing schedules.

For top quality throwing, always use Herr flyers. Feel free to consult us at any time on your flyer problems. Our engineers are at your service at all times.

We will have a wide assortment of Herr flyers, as well as Herr Conical Rings in all sizes, on display at the Knitting Arts Exhibition. Drop in at booth 96B for further particulars.

HERR MANUFACTURING CO., INC.

318-320 FRANKLIN STREET

BUFFALO 2, N. Y.

G-E loom motors

fit loom-load needs, keep output high!

IN STANDARD...

Here are two truly modern G-E loom motors—standard and flywheel—with speed and torque features specially designed to minimize speed fluctuations caused by the pulsating loom load. Even under the added picking load caused by today's heavier shuttles, they maintain loom speeds at a consistently high average level, permit maximum output of quality fabric.

On many looms, the G-E flywheel loom motor permits still higher loom speeds by reducing speed variations even further. Start marks are minimized, loom operation is improved. And often you can use a G-E flywheel motor one size smaller than the standard loom motor.

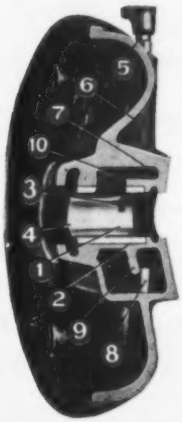
Top performance—low maintenance!

New end-shield design, cast-iron totally enclosed construction for ample physical protection, G-E high-quality insulating materials for electrical reliability, and a host of convenience features for easy installation and maintenance—all these add up to top performance in both motors that closely matches exacting loom needs.

Find out more about these G-E standard and flywheel loom motors. Check with your G-E representative or your loom manufacturer, and write for Bulletin GEA-5011-C.

General Electric Company, Schenectady 5, N. Y.

...OR FLYWHEEL TYPES



Longer bearing life, easier lubrication both assured by new end-shield design

Here's the inside story:

One-piece bronze bearing lining (1) is solidly supported by end-shield casting (2), assuring accurate alignment. Set screw (3) anchors bearing lining to end shield casting. Bearing thrust surface (4) is all bronze.

Easily-accessible oil filler (5) speeds filling through large cast-in oil pipe (6). Oil flows directly to reservoir (7) through opening, with oil overflow standpipe (8) quickly indicating when full. Baffle (9) prevents yarn packing (10) from plugging standpipe or oil path.

How textile mill modernization improves fabric quality and cuts costs is shown in the new G-E More Power to America movie "Textiles Unlimited." Your nearest G-E office will gladly arrange a showing

GENERAL ELECTRIC

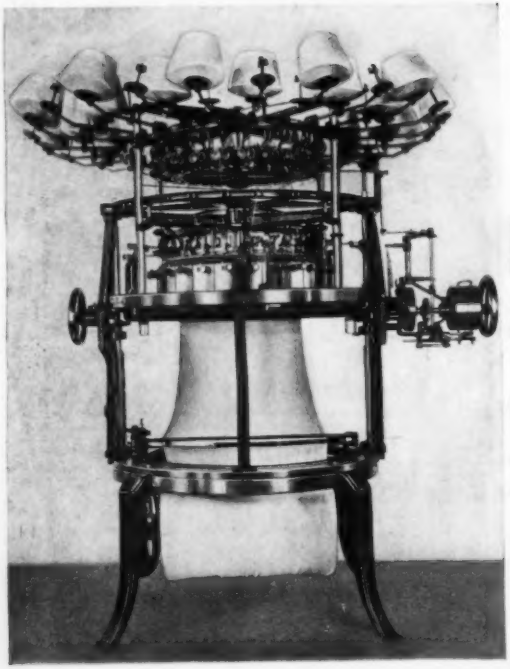
WILDMAN

"30"

INTERLOCK MACHINE

for

SPORTSWEAR
UNDERWEAR
DRESS FABRICS
OUTERWEAR



SUPERIOR

. . . . in
PRODUCTION
and
EFFICIENCY

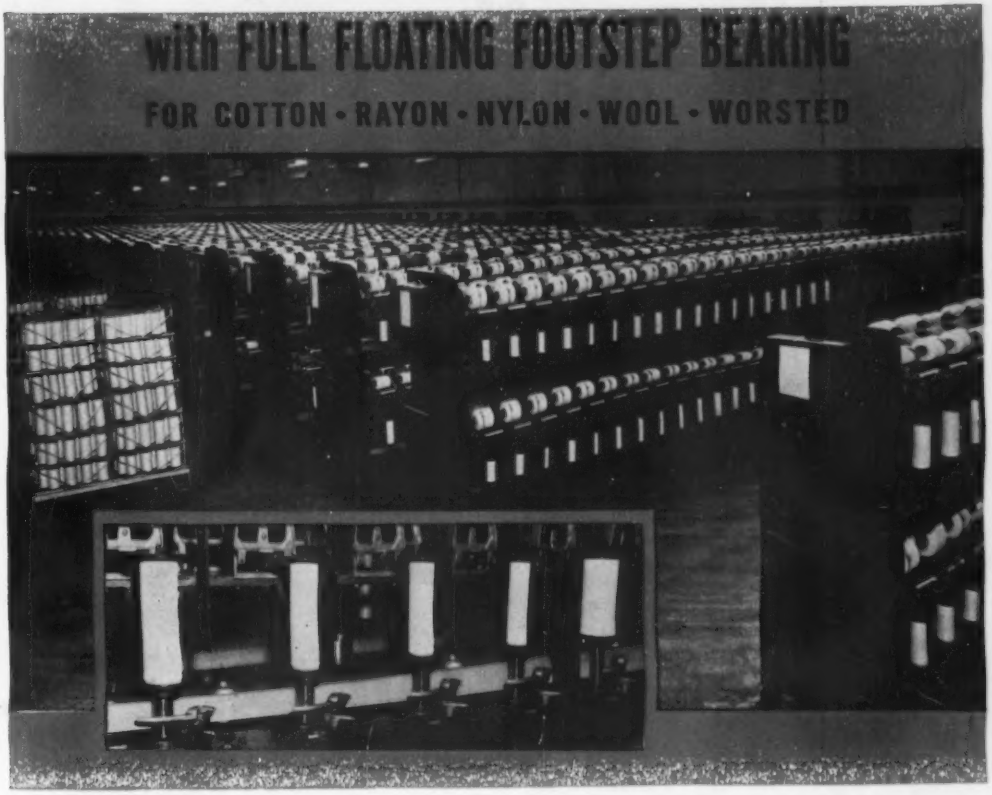
Adaptable to such a wide variety of uses —many, many cuts and feeds for Sportswear, Underwear, Dress Fabrics, Outerwear . . . Popular sizes 26" and 30". Also other sizes from 15" up. Furnished in all cuts up to 24 needles per inch.

WILDMAN MFG. CO. NORRISTOWN, PA.

Marquette ROLLER BEARING SPINDLES

with FULL FLOATING FOOTSTEP BEARING

FOR COTTON • RAYON • NYLON • WOOL • WORSTED



This modern mill, one of several controlled by the Duplan Corporation, ran a test on a single frame of Marquette Roller Bearing Spindles in 1946. As a result, they have since placed many orders for Marquette Spindles—and today have more than 220,000 in operation on both old and new frames.

These Marquette Spindles are running at high speeds, with large packages. They are producing yarn of highest quality. Power and maintenance costs have been reduced.

You too can increase your production and reduce your costs by modernizing your old frames with Marquette Roller Bearing Spindles or by specifying them on new frames. *We will be glad to prove this through a test installation.*

The Marquette

PROTECTED BY U. S. AND FOREIGN PATENTS, AND PATENTS PENDING

METAL PRODUCTS CO.

CLEVELAND 10, OHIO

SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Also Manufacturers of: HYDRAULIC GOVERNORS • FUEL OIL PUMPS • FUEL OIL INJECTORS
WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • PRECISION PARTS AND ASSEMBLIES

Aren't these just the qualities you're looking for in a Softening Oil?

USERS OF

SOL LUSTRE 214

SAY "Yes!"

Finishers and bleachers of cotton fabrics are finding Houghton's Sol Lustre 214 meets all requirements of an outstanding softening agent in starches—without the hazards ordinary softeners present. Sol Lustre remains stable under all normal conditions. It won't discolor whites nor affect any colors. It won't become rancid or produce storage odor. And it's easy to handle and economical.

In a 1% solution Sol Lustre produces the precise plasticizing quality you want in starch finishes. It is also highly efficient as a straight softening oil on any yarn, thread or fabric. Sol Lustre 214 is one of the most versatile textile oils we have ever developed. We urge you to investigate its many applications in your mill. For further information write E. F. Houghton & Co., Philadelphia 33, Pa.

ASK US TO PROVE IT!

The Houghton man will gladly show you a Test Book of fabrics comparing the various qualities of softness obtained by using different softeners.

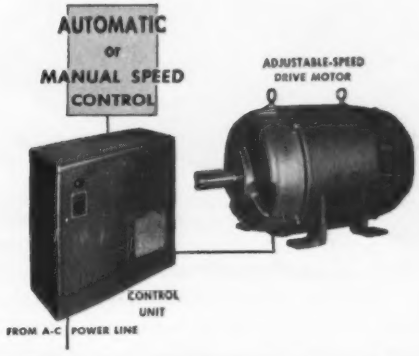
SOL LUSTRE
...a product of

E. F. HOUGHTON & CO.
PHILADELPHIA · CHICAGO · DETROIT · SAN FRANCISCO

Ready to give you on-the-job service . . .

RELIANCE V★S DRIVE®

Proved by 10 Years Operating Experience in the Knitting Industry



Reliance V★S Drive, the original, packaged electrical transmission, features simplicity of design and operation which has made it the practical choice for full-fashioned hosiery knitting machines and other textile processing machinery. Programming of an infinite range of adjustable speeds is one of a wide variety of operating features which assure top-speed production at all times. V★S is easy to install—easy to keep in operation for continuous production. And Reliance field service covers the world.

See the
RELIANCE V★S DRIVE
in Operation
AT BOOTHS 410 AND 411 AT THE
KNITTING ARTS EXHIBITION
ATLANTIC CITY AUDITORIUM
APRIL 30 THRU MAY 4, 1951

Sales Representatives in Principal Cities

RELIANCE ELECTRIC AND ENGINEERING CO.

"Motor-Drive Is More Than Power" 1086 Ivanhoe Road • Cleveland 10, Ohio

SYLVANIA® CELLOPHANE

keeps your packaging in the swim!

Overwrap of Sylvania Cellophane MS-1 in the 450 gauge makes a package with maximum sales appeal . . . complete dust protection for organdy curtains.

These are some of the properties that can help your product win sales:

1 SALES APPEAL **2** Dust protection **4** Durability
3 Low cost **5** Transparency

Visit Our Booth at the A.M.A. National Packaging Exposition, Public Auditorium, Atlantic City, April 17-20, 1951.

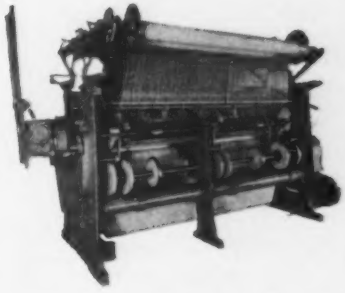
SYLVANIA® CELLOPHANE

SYLVANIA® CELLOPHANE

Sylvania is always ready to help you with your packaging problems. Discuss them with your Sylvania representative or write us mentioning the specific application in which you are interested. Address: Market Development, Dept. TW-4.

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION
Manufacturers of cellophane and other cellulose products since 1929
General Sales Office: 1617 Pennsylvania Blvd., Philadelphia 3, Pa.
Plant: Fredericksburg, Va.

Are you making NETTINGS *and* VEILINGS?



Consider the High Production Rates Available with the Kidde Knitter

Anything from a 15 denier nylon bridal veiling—sheer as a cobweb—to a rugged laundry bag net can be produced at new high speeds on the *Kidde* Knitter. Speeds varying from 200 to 280 courses per minute—depending on pattern and yarn—are being maintained in mills using this machine.

That's a substantially higher rate of production than has ever been attained on this type of machine before—but it's *typical* of the high, *sustained* speeds possible with the *Kidde* Knitter. A new drum drive, a new motion on needle bars make these speeds possible—and the machine is designed throughout to withstand them.

You'll find the *Kidde* Knitter adaptable to practically any type of yarn, thread or elastic—quickly and easily set up for simple or intricate patterns.

Use the Kidde Knitter on these fabrics too

ELASTIC FABRICS for corsets, girdles, brassieres. DRESS FABRICS. DISH CLOTH MATERIALS. CURTAINS. NARROW FABRICS: edgings, braidings, laces. SHOE CLOTH. KNITTED OUTERWEAR FABRICS for sweaters, polo shirts.

"Visit our Booth at the Knitting Arts Exhibition at Atlantic City, April 30 thru May 4, Booths #444 thru #449."

The word "Kidde" is the trade-mark of Walter Kidde & Company, Inc., and its affiliated Companies.

Kidde Knitter

KIDDE MANUFACTURING CO., INC. • BLOOMFIELD, NEW JERSEY

NO two fibers run exactly alike. For example, a 20's synthetic or blend yarn requires a traveler of a different size and type than that used in running cotton yarn of the same number, for best results in spinning.

"Guesswork" and haphazard probing to find the right traveler uses up valuable time, puts you "on the spot".

If your ends down are excessive, if your quality and production are off, make the *one* smart move that has helped so many mills gain greater productivity. Talk over your trouble with a Victor Service Engineer.

Mill-trained, every Victor Service Engineer is a *specialist* in traveler applications, has often helped clear up the most puzzling spinning and twisting problems. Whether you are running conventional fibers, synthetics, or blends — he can often make other valuable suggestions for improving yarn quality and production.

Write, wire or phone our nearest Victor office for prompt, friendly service. There's no obligation.

VICTOR Ring Travelers

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . . Tel. Dexter 1-0737

GASTONIA, N. C. . . . . 358-364 West Main Ave. . . . . Tel. 5-0891

Here are two
of the many popular
sweater styles
that can be knit on

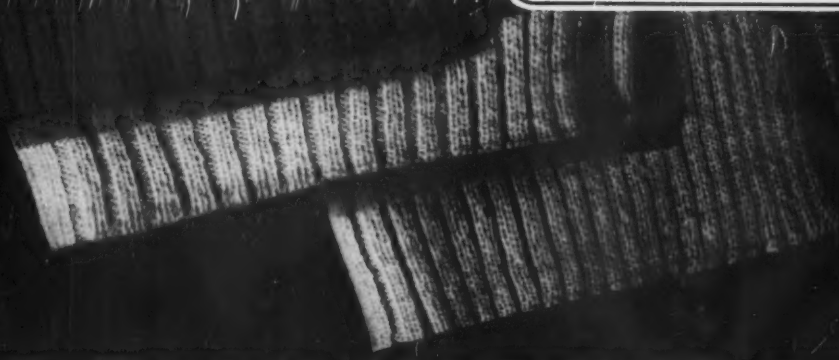
Leighton Machines

Knit with vertical pattern wheel and
2 or 3 color stripe combination.

Leighton Circular Knitting Machines are now equipped with Electric Two Speed Motors — a new development. Assuring increased production—dependable operation.

You are invited to visit the
Leighton Booth, No. 33
at the
Knitting Show,
Atlantic City

Leighton



LEIGHTON MACHINE CO.

MANCHESTER, N. H.

Now—save with a

PACKAGED

G-E Slasher Drive

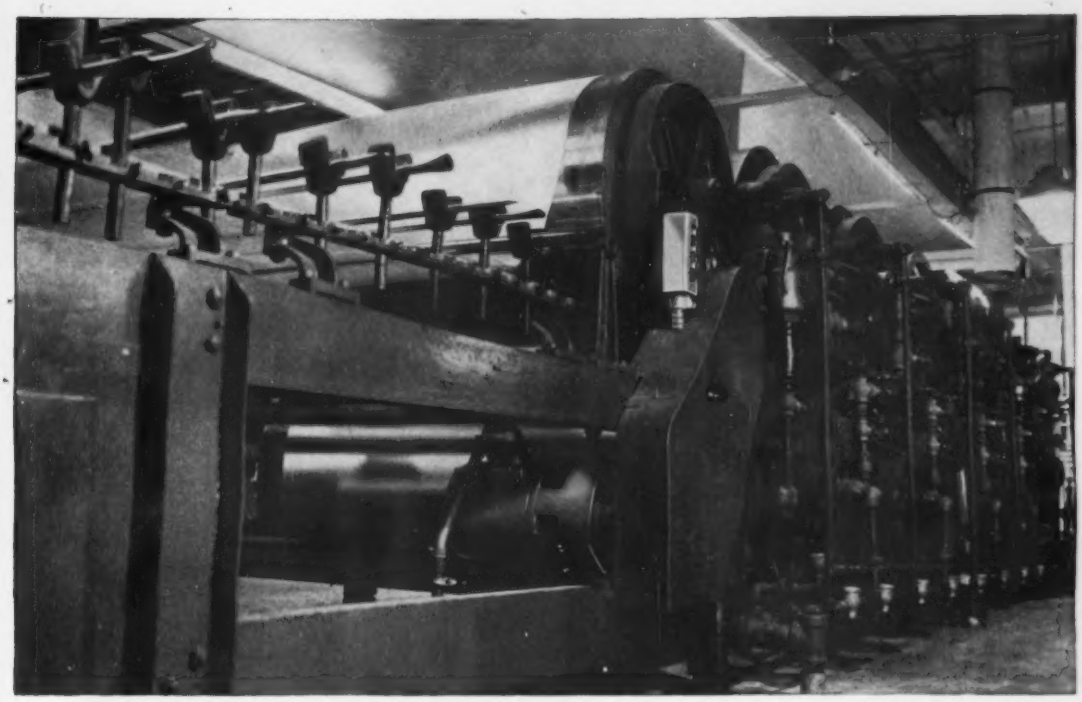
Here's all you need!

A packaged G-E slasher drive consists of only (1) any required number of d-c driving motors with their associated rheostats, (2) operator's control stations which can be put wherever is most convenient, and (3) a "package" containing everything else—motor-generator set, exciter, and all control—which can be remotely located to save space around the slasher.

GENERAL ELECTRIC

654-17

For more information, write direct or use Reader Service post card.



G-E amplidyne-controlled 4-motor drive provides operating speed of 12 to 60 yards per minute for this synthetic yarn slasher in the William Skinner and Sons Co. mill in Holyoke, Mass. View from windup end shows one of four G-E 1½-hp gear-motors driving the drying cylinders. Operator can start and stop the drive from the drying section, if necessary, by means of the push-button station shown above motor.

—in first cost, installation, floor space, and maintenance!

All the advantages you've liked in the General Electric multi-motor slasher drive are now also available to you in this new packaged G-E drive that cuts your costs four big ways:

You save on first cost substantially—because mass production of standardized parts reduces unit costs.

You save on installation because the factory-assembled power "package" needs no special foundation, contains all wiring between components except to the remotely-mounted motors and operator's controls.

You save on floor space because motor-generator set, exciter, and all control are housed in one compact unit.

You save on maintenance because all components in the power unit are easily accessible; dust, dirt, and lint are prevented from entering the power unit by large ventilating-air filters.

Both G-E slasher drives—packaged and separate-unit type—use the same performance-tested adjustable-voltage d-c speed control teamed up with amplidyne tension control. Both give you the same **automatically controlled** warp tension for most efficient slasher operation. **The payoff? Uniform high-yardage warps, fewer ends down at the loom, higher weave-room efficiency!**

Ask your machinery manufacturer or your G-E textile-mill specialist about all the operating and cost-saving features of packaged G-E slasher drives. Meanwhile, send for Bulletin GEA-5259 on standard G-E slasher drives. **General Electric Company, Schenectady 5, N. Y.**

SLASHER DRIVES FOR TEXTILE MILLS

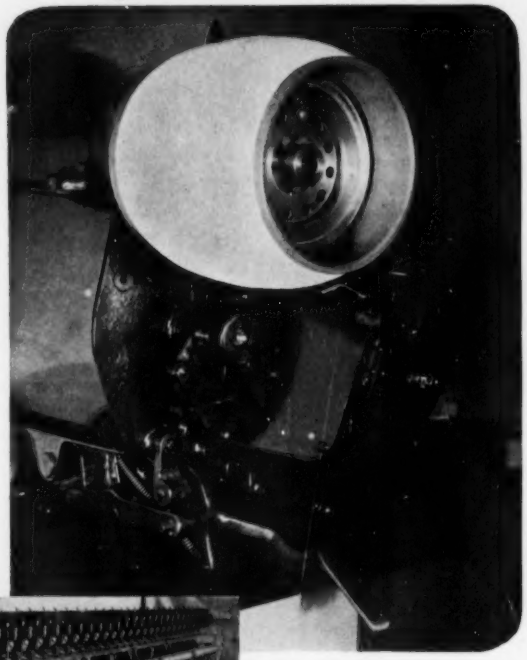
Ask your G-E representative to arrange a showing of "Textiles Unlimited." It's G-E's full-color sound movie on how textile mills are modernizing—a More Power to America presentation.

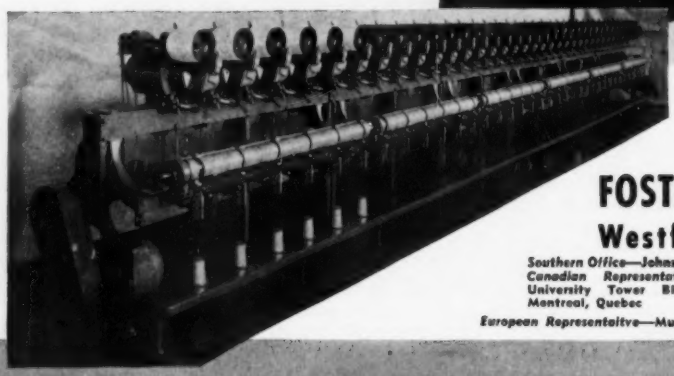
SPEED is the Spirit of 76

The Foster Model 76 Nylon Sizing Machine winds *fast*. 2500 feet per minute of fine nylon yarn is the speed of 76. And the sizing is done smoothly. Model 76 is solidly built, of heavy construction, and virtually free from vibrations caused by high running speeds. Consequently, nylon yarn sized on this machine is sized evenly and quickly.

An additional feature of the Foster Model 76, conducive to increased production, is the barrel wind attachment. Note how the oval shape of the package—no decided tapers or shoulders—permits smoother delivery, and how the more open winding where the package is thickest facilitates uniform steaming and drying.

All in all, the spirit of 76 is speed, and every construction detail of this machine is designed to achieve faster performance efficiently. The results are superior.





Visit us at
Knitting Arts Exhibition
Booth Nos. 28-29-30-35-36-37

FOSTER MACHINE CO.
Westfield, Mass., U. S. A.

Southern Office—Johnston Bldg., Charlotte, N. C.
Canadian Representative—Ross, Whitehead & Co. Ltd., University Tower Bldg., 660 Ste. Catherine St., West, Montreal, Quebec
European Representative—Muschamp Taylor Ltd., Manchester, England

FOSTER MODEL 76
NYLON SIZING MACHINE

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y.

The New
Middleweight
Champion!
What should suit comfort weigh in at?
More and more men in the know are putting their money on medium weight—not too warm for today's efficient heating systems . . . yet warm enough for all but the more nerching days.
Here's the secret of the growing popularity of rayon for smartly tailored men's suits. Because of this man-made fiber's basic adaptability, it can be made just right . . . fitted to the kind of constructions that retain body heat without unnecessary weight.
But remember, comfort is only half the story of this new kind of suit. Rayon has a genius for style as well as comfort. Whether you see it as a 100% rayon or rayon and wool, you'll meet up with fabrics with a luxurious springy feel and subtle color gradations heretofore found in only the most expensive materials.
These suits deserve your investigation. Look at their handsome appearance, glance at their reasonable price tags. A brief trial of their easy wearability will show you why many a best dressed winner is saying—"make mine rayon!" American Viscose Corporation, 350 Fifth Ave., New York 1, N. Y.
AMERICAN VISCOSE CORPORATION
AMERICA'S LARGEST PRODUCER OF RAYON

Textron adopts new Tricot Pre-Setting Process

TEXTRON, INC. is proceeding to take advantage of the benefits offered by the Avisco tricot pre-setting process introduced last year. It is now licensed to make and use the machine in its plants in the United States and Puerto Rico.

Textron will capitalize on the production efficiency this method of presetting tricot affords. Important among its advantages is its elimination of tacking and un-tacking the selvage to prevent setting of the curl during dyeing. It makes possible straight course lines... prevents "crow's feet" and crease marks ...controls the stability of acetate rayon tricot while achieving an improved hand. It permits the knitting of longer lots which may be dyed continuously.

Full details on this advanced finishing method will gladly be furnished.

Avisco advertisement makes timely appearance

A lucky break aroused unusual interest in this Avisco public relations advertisement. The bout that established a new middleweight boxing champion took place the night before the message appeared in the *New Yorker Magazine* . . . the news of the fight tying in perfectly with the headline (written in October when it was decided to tell the success story of rayon medium weight suitings). The ad also appeared in *Time Magazine* in the issue that described the fight.

RAYON 20 YEARS AGO

NEW YORK, April, 1931 – Rayon linings are being given credit for the present upsurge in the men's clothing industry.

NEW YORK, April, 1931—The current issue of the "Crown News" carries a feature article on "Sombray" the new rayon developed by The Viscose Company.

CHICAGO, April, 1931—Crown Brand rayon held the feature spot at the Chicago garment show. A wide assortment of daytime and sport dresses were displayed against a background of 30 drapery fabrics.

MAKE USE OF *Avisco* 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
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AMERICAN VISCOSE CORPORATION

America's largest producer of rayon

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

PUTTING *Air* TO WORK

28 LUNGS THAT EXHALE AN
EXPLOSIVE HAZARD

To exhaust fumes and vapors from slasher rooms, dye houses and finishing departments—as well as air conditioning, air handling or air cleaning—there is Sturtevant equipment specifically designed to help you put air to work. Contact your local Sturtevant office, or write to Westinghouse Electric Corporation, Sturtevant Division, Hyde Park, Boston 36, Mass.

For fume and vapor exhausting in your machine, beater and grinder rooms—as well as air conditioning, air handling or air cleaning—there is Sturtevant equipment specifically designed to help you put air to work. Contact your local Sturtevant office, or write to Westinghouse Electric Corporation, Sturtevant Division, Hyde Park, Boston 36, Mass.

YOU CAN BE SURE...IF IT'S **Westinghouse**

PUTTING *Air* TO WORK

J-80209

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It's

DU PONT CONTINUOUS PEROXIDE BLEACHING SYSTEMS

for efficient, economical

KNIT GOODS BLEACHING

These installations now producing over 60,000 pounds per day!

POTTSVILLE

Bleaching and Dyeing Co.
Port Carbon, Pa.

Installed.....July, 1948
Capacity.....3,000 lbs. hr.
Goods Processed.....Cotton ribbed knit material and flat knit of all sizes and weights

Processing time cut to less than 2 hours . . . Substantial savings in steam, water, and chemicals.

SPRING CITY

Bleach and Dye Works
Spring City, Pa.

Installed.....July, 1947
Capacity.....3,000 lbs./per hr.
Goods Processed ..... Cotton knit

Bleaching time reduced 90% on light- and medium-weight fabrics . . . All operations easily handled by two men.

LUMBERTON

Bleach and Dye Works
Lumberton, N. C.

Installed.....March, 1948
Capacity.....2,500 lbs./per hr.
Goods Processed ..... Cotton knit underwear fabrics

Results satisfactory in every respect . . . Millions of yards processed speedily and economically since installation.

OUTSTANDING RESULTS LIKE THESE are being duplicated everywhere the Du Pont Continuous Peroxide Bleaching System is used. Why not check its excellent possibilities for your plant right now?

FOR MORE INFORMATION

on Du Pont Continuous Peroxide Bleaching Systems, just write: E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Dept., Wilmington, Del.

E. I. du Pont de Nemours & Co. (Inc.)
Electrochemicals Department, Wilmington 98, Del.

Please send me more information about Du Pont Continuous Peroxide Bleaching Systems.

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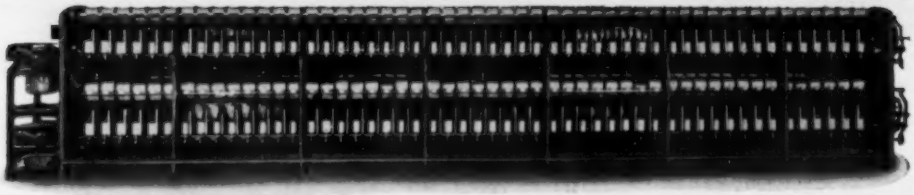
DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

"UNIT-CONTROL"

. . . an Exclusive Advantage of the



Fletcher HEAVY-DUTY TWISTER

Many thoroughly proven principles of engineering and design have been built into this Fletcher Twister which is especially adapted to heavy packages. Outstanding is the "Unit Control" feature, a compact, self-contained unit which controls both twist and traverse from one end, with a smooth steady motion. Among the many obvious advantages which "Unit Control" provides are . . . Direct driven traverse . . . no teetering or lost motion . . . compactness, cleanliness, accessibility, interchangeability and greater convenience.

Other features include:

- Oilwell spindles, a year's supply of clean oil. (Anti-friction spindles optional).
- Oilless bearings at every advisable point.
- Easy adjustment of spindle swings, facilitates proper belt contact . . . uniform spindle speeds.
- Individual spindle swing supports, mounted on solid steel rails.
- Each deck an independent unit, driven by individual motor.
- Motors mounted on sliding base.
- Light, pressed steel take-up rolls driven by spindle belt through "Unit Control."
- Collapsible guide eye, for easy removal of large traverse bobbins.
- Power-saving large idler pulleys for high spindle speed.
- Twist gears easily accessible, arranged so number of teeth in gear equals number of turns per inch in yarn.

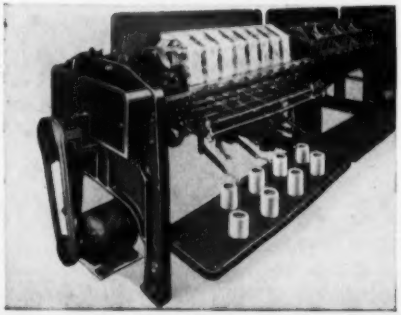
Get all the facts and features of the Fletcher Heavy-Duty Twister—write for Bulletin 65.

FLETCHER "PERFEX" HIGH SPEED REEL

. . . the Reel with the "Backbone" that Resists Vibration

A ten inch steel I beam throughout the length of the reel provides extreme rigidity in the "Perfex," the reel recognized throughout the world as standard for rayon and nylon yarns. It produces uniformly perfect diamonds, with length of skeins predetermined by either electrical or mechanical means. Shafts and movable parts are guarded for safety. No metal to metal gear meshing assures quieter operation.

Write for Bulletin 63 that tells all the construction features, dimensions, etc.



FLETCHER WORKS

223 GLENWOOD AVE PHILADELPHIA 40, PA. ESTABLISHED 1850

Delivering

the cost-cutting new designs in Yarn Carriers you need to beat today's cost squeeze

With today's cost and pricing set-up squeezing profits harder than ever, you need the advantage of every saving made possible by improved processing equipment.

You'll realize such savings—bigger than you ever thought possible — with the use of the many new developments in yarn carriers made by U S. In bobbins and shuttles for every fiber, natural or synthetic, U S design leadership offers years-ahead features that set entirely new standards of efficiency and economy.

And U S, continually expanding manufacturing facilities which are already the largest in the field, is ready to equip your mill without delay. Talk over your needs with a U S representative now.

US BOBBIN & SHUTTLE CO.

LAWRENCE, MASS. • PROVIDENCE, R. I. • PHILADELPHIA, PA.
JOHNSON CITY, TENN. • GREENVILLE, S. C. • CHARLOTTE, N. C.

REPRESENTATIVES — CHICAGO: Albert R. Brose, 80 E. Jackson Blvd.
LOS ANGELES: E. G. Paulus, 1762 W. Vernon Ave.
CANADA: W. J. Westaway, Montreal, Que., Hamilton, Ont.

NEW PLANT CAPACITY

With five plants operating, north and south, U S has completed a 3-year plant expansion and improvement program. The further addition of the Acrometal Products Division, provides a large modern plant for metal bobbin production. Total capacity, ready to serve your needs, is unmatched in the industry.

NEW BOBBIN DESIGN

Among many U S improvements in bobbin design is the new LOCKE Bushing. It prevents "freezing" on the spindle, and the troubles due to forcible doffing. Speeds doffing, minimizes broken ends, bobbin lasts longer.

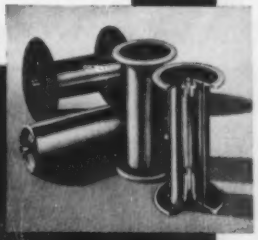
NEW SHUTTLE DESIGN

The GOSSELIN "3 in 1" TENSION SHUTTLE is representative of U S leadership in shuttle improvement. Hand-threaded in a flash, it eliminates the need for the weaver's hook. Threading time is three times faster. It offers a choice of 3 tension hook-ups in one shuttle, can handle yarn of any degree of elasticity. Reduces shuttle inventory.

NEW-ALL NEW

ACROPAK

metal Bobbins for Nylon and other synthetics



Now available from U S, the nylon-armored, aluminum alloy ACROPAK Twister Bobbin, and the aluminum-alloy ACROPAK Take-up and Headless Bobbins are the effective answer to bobbin-killing synthetics. They offer strength and durability far beyond normal needs, and their lightness permits higher speeds, faster production. Reduce bobbin cost - per - year to a new low.

PROMPT DELIVERIES

Check U S on delivery of any yarn carrier needs. Most U S products can be delivered when needed, without delay.

Check these features

Kidde-Aveco Tricot Machine turns out Quality Fabrics at High Speed

Where you want fast production of improved quality fabric use the Kidde-Aveco High Speed Tricot Machine.

Brakes for controlling the beams have been replaced by a mechanical continuous let-down. The ratchet take-up has been replaced by a new continuous take-up. A high starting torque motor equipped with quick stop is used to minimize the periods of acceleration and deceleration. These changes improve fabric quality . . . eliminate shade marks . . . reduce stop marks so that they usually dress out.

Be sure to see the New Kidde-Aveco Tricot Machine at the Knitting Arts Exhibition at Atlantic City, April 30 thru May 4. Booths 444 thru 449.

✔ **NEW CONTINUOUS LET-DOWN.**
It is easy to set and maintain because it's mechanical in operation. It completely eliminates shade marks and reduces stop marks. Fabric quality is improved.

✔ **NEW VARIABLE SPEED DRIVE.**
A turn of a hand wheel varies machine speed. No chain drive . . . no gears to be changed . . . quieter operation. Tachometer included.

✔ **NEW CONTINUOUS TAKE-UP.**
It permits quality to be established quickly by turning an adjustment screw. No gears or sprockets to be changed. No clutch. Once set, it requires no adjustment.

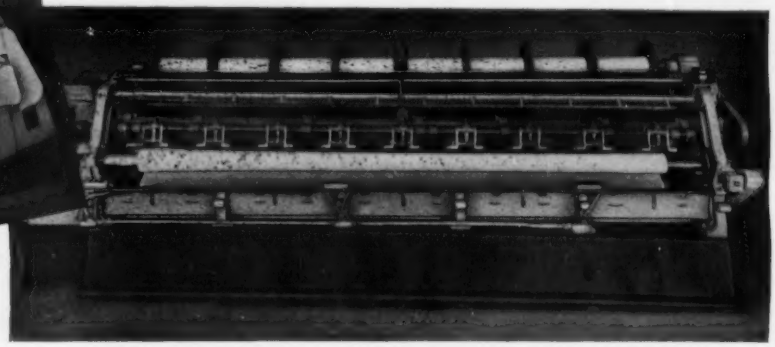
✔ **OTHER FEATURES**
These include improved plunger design, improved front guide bar lifting mechanism, quick-stop and jogging control.

Left end of machine showing enclosed gear box, pattern mechanism, motor and controls.

KIDDE MANUFACTURING CO., INC.,
BLOOMFIELD, N. J.

Kidde-Aveco

FOR TOP-QUALITY FABRICS



Right end showing continuous let-down and take-up.

Have You Ever Made THIS Time Study?

Never forget this most important fact: the biggest element in your maintenance painting costs is the *time* element. Because time represents man hours . . . labor . . . and labor counts for at least *eighty percent* of the cost of any painting job.

That's why we recommend this simple test. Take a gallon of "Barreled Sunlight" and a gallon of any other brand you may now be using. Thin both according to directions and apply under identical conditions. Then compare . . . *not* by price per gallon but by the amounts of paint "ready for the brush" after thinning, the appearance of the finished job and — most important of all — the time it takes to cover the same amount of surface.

Smart maintenance men the country over who have made this simple "time study" have discovered that the real yardstick of painting costs is not price per gallon but the *applied cost per square yard* for both materials *and labor*. And on that basis, they've learned for themselves that "Barreled Sunlight" delivers a better-looking, longer-lasting job at lower cost than any other paint.

Our representative will be pleased to arrange one of these tests for you — right in your own plant and at your convenience. Write — and he'll call.

BARRELED SUNLIGHT PAINT CO.
20-D Dudley St., Providence, R. I.

Barreled Sunlight Paints

In whitest white or clean, clear, pleasing colors, there's a Barreled Sunlight Paint for every job

IT ALWAYS COSTS MORE NOT TO PAINT!

For more information, write direct or use Reader Service post card.

Life-Linestarter
PAIRED FOR PRODUCTION
Life-Line motor
WESTINGHOUSE
WESTINGHOUSE
DO NOT LUBRICATE

Multiply effective time of maintenance men with this matched pair

How much time do your maintenance men spend lubricating motors—or servicing starters? It is valuable time which could be applied to other equipment. Take the case of a southern mill for example:

THEY THREW GREASE GUNS AWAY—and freed men for other important maintenance. Here's how. In this mill, 75 motors drive knitting machines. Formerly, they were lubricated weekly. Four years ago, Life-Line motors were installed. ALL have been operating four years—continuously 16 hours a day, 6 days a week. Yet, they *never* have been lubricated. There have been no outages.

Maintenance men carry only an oilcan for oiling knitting machines. Lubrication time has been cut in half, releasing them for time on other equipment to keep it in top running shape.

BUT THAT'S ONLY HALF OF THE STORY. Life-Linestarters® cut maintenance two more ways. They reduce motor burnouts through the positive protection afforded by the bimetallic disc. They require minimum servicing. Exclusive "De-ion®" grid confines, divides, and extinguishes arc—increasing contact life.

Together Westinghouse Life-Line motors and Life-Linestarters are your best defense against outages . . . your best bet to free maintenance men for other duties. Why not get the advantages of this matched pair?

Call your nearby Westinghouse representative for data on the complete line of Life-Line motors and starters. Ask for copies of "Life-Line Motor Book", B-3842, and "Tomorrow's Starter Today", B-4677. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. J-21629

YOU CAN BE SURE... IF IT'S Westinghouse

Life-Line

MOTORS and CONTROLS

Complete Review

of the

40th Knitting Arts Exhibition

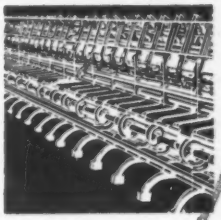
will appear in the

JUNE ISSUE

of

TEXTILE WORLD

for your nylons—



smoother production, easier selling with

LAUREL NYLON HOSIERY FINISHES

These remarkable Laurel Hosiery Finishes assure you better lubrication and increased elasticity. Simplify and speed up your processing. Yield softer, more beautiful hosiery . . . with greater freedom from snags and wrinkles. Leading knitters find Laurel Nylon Hosiery Finishes improve their manufacturing and selling operations *and* their profit position. Why not let our Technicians arrange a test for you? Or, write for trial order and directions today.

textile soaps, oils, finishes

LAUREL SOAP MANUFACTURING CO., Inc.

Wm. H. Bertolet's Sons

ESTABLISHED 1909

Laurel Coning Oil #443 • Laurel Nynit C • Laurel Scouring Compounds • Laurel Supergel • Laurezol #6 • Laurel Peramel #4 • Laurel Dull Finishes • Water Repellent

Offices: 3600 E. Tioga Street, Philadelphia 34, Pa.
Warehouses: Paterson, N. J., Chattanooga, Tenn., Charlotte, N. C.

COMING APRIL 30

SINGLE OPERATOR AUTOMATIC BOARDING

See before your very eyes the latest model Proctor single operator automatic boarding, drying, stripping, piling and counting machine being used to actually finish hosiery.

THE WORLD'S MOST SIMPLIFIED PREBOARDING

Not a picture, not a facsimile—but the genuine Proctor compact, mechanically simplified preboarding machine on display.

NYLON HOSIERY PRE-SETTING

Learn the advantages of pre-setting sheer nylon hosiery—and see the Proctor Nylo-Set Cabinet in which it is done.

TRAY DRYING for HOSIERY

Don't miss the newest member of the troupe—the Proctor Tray dryer—making its debut this season.

REDMAN MOVIE

A genuine, color movie that talks and tells the story of Redmanized* Fabrics and the system that makes possible shrinkage control in these tubular knit goods.

Free Technical Information

Reader Service

MILL EXECUTIVES may obtain free for the asking . . .

. . . OUTSTANDING TRADE LITERATURE reviewed on the next and following pages

. . . FURTHER INFORMATION on
New Textile Equipment
New Dyes & Chemicals
New Useful Accessories
Editorial Articles
and the Advertisements

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. . . to send a Kink, a letter for Round Table, or a news note

. . . to comment on anything appearing in this issue

. . . to query the editors about any manuscripts you might wish to submit to them

. . . to send an inquiry to the Questions & Answers department

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. . . to get more information about advertisements appearing in this issue

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Dear Editor: APRIL, 1951

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Outstanding TRADE LITERATURE *Free for the Asking*

NO REPEATS . . . Listed here for April are current bulletins reviewed by the editors of TEXTILE WORLD. To get the ones you need, circle the number on the Reader-Service card, as described on the preceding page.

PROCESS EQUIPMENT

Machinery and replacement parts manufactured by Medley Mfg. Co., Ltd., are described in a catalog issued by that firm. The catalog illustrates and describes Medley drawing frames and parts required for change-overs. **(F-1)**

A Spanish translation of the pictorial review book on Banner wrap-reverse automatic knitting machines has been published by Hemphill Co. This 28-p. book contains photographs of important parts of the machine and explains in Spanish how these parts function. **(F-2)**

A French translation of the pictorial review book on Banner-wrap reverse automatic knitting machine has been published by Hemphill Co. This 28-p. book contains photographs of important parts of the machine and tells in French how these parts function. **(F-3)**

Variable-speed drives are featured in a 12-p. bulletin published by Reeves Pulley Co. Descriptions are given of the basic operating principal of the Reeves variable-speed drives. Included are representative rating tables and dimension drawings. **(F-4)**

"Selling to the Armed Forces," a 24-page directory, and a companion guide "How to Get Military Business," have been prepared by Research Institute of America, Inc. The directory gives an alphabetical listing of the major articles being bought by the military services and the offices that buy them. The guide explains procedures to be followed in dealing with the Services. **(F-5)**

A thread-trimming machine designed specifically for the hosiery industry is described in a bulletin published by Ginsberg Machine Co., Inc. Different models of Trim-Master for men's fancy half hose, ladies' seamless hose, and half-hose rubber tops are shown. **(F-6)**

Fork-lift trucks, tractors, and electric pallets are featured in a specification folder prepared by Towmotor Corp. This folder gives specifications of each of the Towmotor units, such as capacities, load centers, lift heights, weights, dimensions, turning radii, speeds of travel, etc. **(F-7)**

"Studies of Wool Dyeing: The Influence of the Cuticle in the Dyeing of the Wool Fiber" is the subject of a bulletin released by Calco Chemical Div., American Cyanamid Co. Featured are studies of the influence of scale structure of a wool fiber on dye penetration. **(F-8)**

Uniform heating for resin curing and fabric stabilization is featured in a bulletin published by Sill Industries. Fiberglas super-heaters provide black radiant heat at controlled temperatures up to 700° F. **(F-9)**

Edge-positioning controls and **web-handling systems** are featured in a descriptive paper issued by Askania Regulator Co. This non-contact control system detects the position of the web with air-sensing nozzles and positions it with a hydraulic regulator. **(F-10)**

A spindle oiler is featured in a bulletin published by Brown Dynalube Co. The battery-powered Brown Dynalube spindle oiler is said to save up to 66% of the cost of oiling spindles. **(F-11)**

Sample marking is described in a bulletin published by Milfa-Graph, Inc. The Milford-Astor sample and display unit is available in models operated manually or automatically. It is designed to mark swatches, cards, binders, and displays. **(F-12)**

Production and inventory control is featured in a 40-p. booklet published by Remington Rand, Inc. The booklet highlights efficient and accurate record-keeping management to assure continuous and uninterrupted production flow. **(F-13)**

A fork-lift truck is described in a specification folder published by Industrial Truck Division, Clark Equipment Co. The Trucklcader has 1,000 lb. capacity, a 24-in. load center, and automatic acceleration. **(F-14)**

An automatic dry-type air filter is featured in a bulletin published by American Air Filter Co. The Auto-Airmat is an automatic self-cleaning dry-type air filter which uses Airmat paper as the collecting medium. **(F-15)**

SUPPLIES AND CHEMICALS

Tape dispensers are featured in a bulletin published by Minnesota Mining & Mfg. Co. The bulletin illustrates and describes standard tape-dispensing models and special models for specific applications. **(F-16)**

Conveyor and elevators belting is featured in a 16-p. bulletin published by Thermoid Co. The bulletin describes the various types of belting and gives suggestions for their application. It in-

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Reader Service [Continued]

cludes tables, charts, and formulas to help in the selection of the right type of belt for a particular application. **(F-17)**

"100 Years of Piping Progress" is the subject of a booklet prepared by Grinnell Corp. The booklet highlights the history of the company and describes typical Grinnell products. **(F-18)**

Repair parts for pickers, cards, drawing frames, roving frames, and spinning frames are featured in a parts catalog published by E. E. Smith & Son. The catalog illustrates and gives parts numbers of major replacement items for each of the above-mentioned machines. **(F-19)**

Vinyl plastic coatings are featured in a bulletin published by Casey & Case Coating Co. The vinyl plastic coatings manufactured by this firm are designed for the control of corrosion on exteriors of steel, concrete, brick, formed block, and plywood structures; and as a tank lining. **(F-20)**

How to apply Miaproof water-repellent finishes is described in a bulletin issued by Carbide & Carbon Chemicals Div. This aluminum-acetate powder is soluble in hot or cold water and is insoluble in most organic solvents. **(F-21)**

CONTROL EQUIPMENT

Sanitation and floor-maintenance supplies are featured in a booklet published by Huntington Laboratories, Inc. Items described include floor-cleaning, finishing, waxing, and maintenance supplies; soaps; deodorants; disinfectants; insecticides; and cleaning specialties. **(F-22)**

"Manual of Laboratory Safety" is the title of a newly revised 40-p. booklet published by Fisher Scientific Co. This revised edition includes up-to-date data, techniques, and equipment to promote laboratory safety. **(F-23)**

The Aeralomoter, an instrument designed to measure fiber fineness and maturity, is described in a bulletin published by Special Instruments Laboratory, Inc. These factors are determined and shown graphically by measuring the resistance that a given mass of fiber offers, under different conditions, to the flow of air. **(F-24)**

Speed-measuring instruments are featured in a bulletin published by James G. Biddle Co. Included are descriptions of resonant-reed tachometers, chronometric tachometers, hand tachoscopes, hand tachometers, and hand tachographs. **(F-25)**

Instruments used in research and analytical studies are described in an 84-p. book published by Brown Instruments Div., Minneapolis-Honeywell Regulator Co. The book emphasizes how extensively industrial instruments are being used alone or in combination with others for technical, engineering, and laboratory work. **(F-26)**

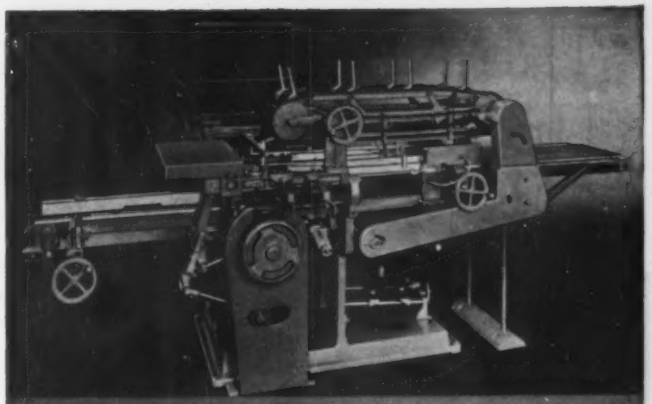
Tachometers are featured in an instrumentation data sheet released by Brown Instruments Div., Minneapolis-Honeywell Regulator Co. This data sheet describes the use of the Brown recording ElectroniK potentiometer to plot machine speeds for time study and processing anlysis. **(F-27)**

ENGINEERING DATA

Dashide, a water-proofing material, is featured in a bulletin released by The Dasco Co., Inc. This material is designed to stop water penetration on outside above-grade masonry walls immediately, and it is said to last for a minimum of 10 yr. **(F-28)**

Application and use of Acme Steel products are described in *Confab*, a new quarterly magazine published by Acme Steel Co. The first issue features industrial use of steel strapping and package stitchers. **(F-29)**

Water treatment is discussed in an 12-p. booklet issued by Elgin Softener Corp. This booklet was designed to serve as a guide to correct water treatment, and it



Model FA Wrapping Machine, made by PACKAGE MACHINERY COMPANY, Springfield, Mass.

–they say:

"We recommend This Lubricant to Our Customers"

"We have found LUBRIPLATE Lubricants to be very effective and use them extensively in our machines."

"To assure the proper use of LUBRIPLATE Lubricants for re-lubrication, we place tags on our machines before shipment. Thus the purchasers of those machines know the LUBRIPLATE Product we recommend for each application and where to obtain it."

The Package Machinery Company of Springfield, Massachusetts is among the earliest users of LUBRIPLATE Lubricants. They use them for original lubrications because LUBRIPLATE Lubricants arrest progressive wear and add longer life to moving parts. They recommend them for re-lubrication to preserve the efficiency of the machines, to reduce power costs and minimize service work and parts replacement.

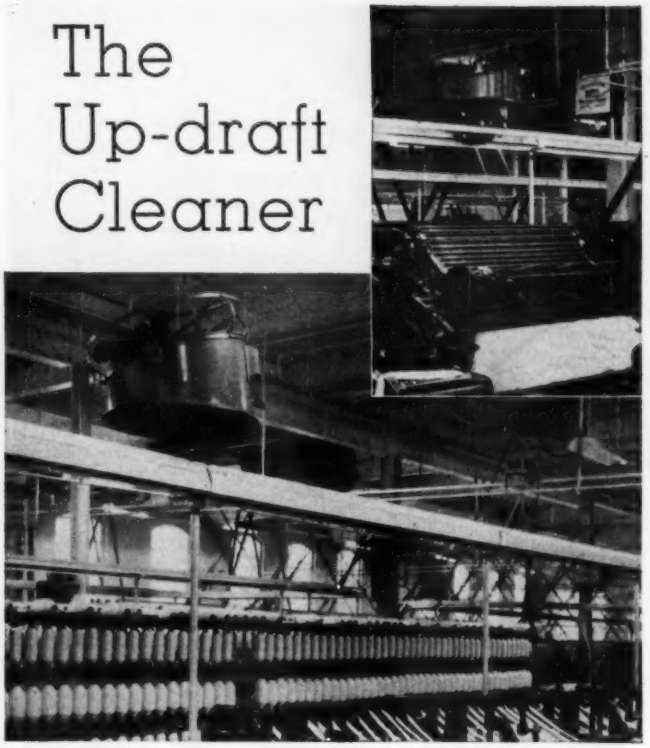
LUBRIPLATE Lubricants are available from the lightest fluids to the heaviest density greases. There is a LUBRIPLATE Product best for your every lubrication need. Write for case histories of the use of LUBRIPLATE in *YOUR* industry.

LUBRIPLATE DIVISION
Fiske Brothers Refining Company
Newark 5, N. J. Toledo 5, Ohio

DEALERS EVERYWHERE . . . CONSULT YOUR CLASSIFIED TELEPHONE BOOK

LUBRIPLATE *THE MODERN LUBRICANT*

The Up-draft Cleaner



Originally designed to be used with the Parks-Cramer Frame Cleaner (mounted on spinning, winding, twisting, and other frames), the Up-draft Cleaner has lately gained its independence and gone into the preparatory areas alone. It has proved particularly effective in the card room. Virtually all hand cleaning of upper areas is eliminated by this automatic, mechanical cleaner.

Operating on our standard track, it goes about its business without getting in the way of belts, shafting, or air conditioning ductwork, either present or contemplated.

With its continuously revolving column of air, it effectively cleans lights, pipes, conduits, and ductwork.

The Up-draft Cleaner is another worth-while investment in better textile mill housekeeping.

And what a difference a clean room makes!

Parks-Cramer Company

Fitchburg, Mass. Charlotte, N. C.

PARKS Certified Climate

Reader Service (Continued)

explains why various water troubles occur and how they can be eliminated. **(F-30)**

A safety kit for manufacturers who use industrial lift tricks is offered by Towmotor Corp. The kit includes interior plant signs prepared in bright colors with large type to caution truck operators of blind corners, traffic crossings, low head room, etc. It also includes safety cartoons and an operator's guide. **(F-31)**

The Grand River Dam Authority and its industrial features are described in a booklet published by Grand River Dam Authority. Described are the power, water, steam, and locations in that area that are available for industrial facilities. **(F-32)**

Water-heating methods are featured in a bulletin published by Pick Mfg. Co. The booklet is designed to give quality users of hot water a chance to analyze comparative costs of water-heating methods. **(F-33)**

Protection against corrosion is explained in the December issue of *Metco News*, published by Metallizing Engineering Co. This issue of the publication shows how metallizing with zinc will give many years of protection against corrosion. **(F-34)**

Dust control is featured in a 50-p. book published by Pangborn Corp. The book outlines selection, operation, and maintenance data for industrial dust control with exhaust systems. **(F-35)**

Materials handling is featured in a 64-p. catalog issued by Feedrail Corp. The prefabricated trolley-busway electrical-distribution system manufactured by this firm is illustrated and described. The catalog also has special sections on planning, layouts, installations, and specifications. **(F-36)**

Fire-fighting and industrial breathing equipment is described in a bulletin published by Safety Equipment Div., Scott Aviation Corp. The Scott Air-Pak permits breathing of fresh, cool air in an atmosphere of smoke, toxic gases, heat, or oxygen deficiency. **(F-37)**

Multi-purpose hoists with capacities from 500 to 3,500 lb. are described in a 16-p. bulletin released by Joy Mfg. Co. These single-drum, multi-purpose hoists can be driven by Turbinair, Pistonair, electric, or gasoline engines. **(F-38)**

An overhead guard device for use on Towmotor fork-lift trucks is described in an accessory data sheet issued by Towmotor Corp. The overhead guard is designed to give maximum protection to lift-truck operators and may be attached by bolts and clamps, which are furnished. **(F-39)**

A portable electric blower is featured in a bulletin released by Breuer Electric Mfg. Co. This blower comes in four models, which range from a discharge speed of 53 cfm. to 86 cfm. Other special models are available. **(F-40)**

Machine mountings are described in a folder published by The M B Mfg. Co., Inc. The Isomode pads, as described, are designed to control vibration, reduce noise, and absorb impact. **(F-41)**

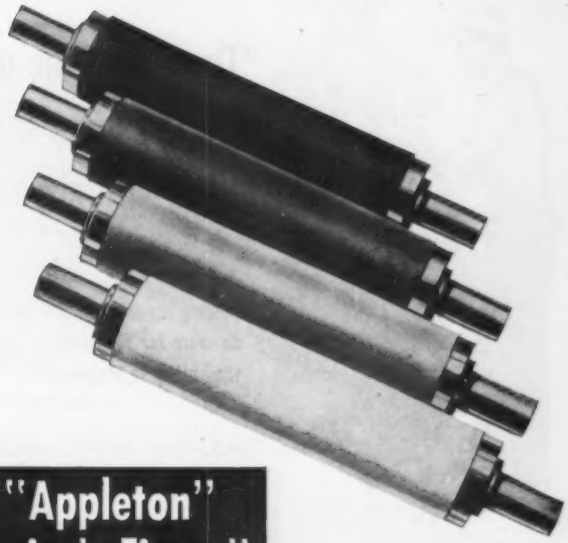
Cranes, hoists, and winches are featured in a bulletin released by Robbins & Myers, Inc. Included are hoists for capacities up to 20,000 lb.; cranes, up to 25 tons; and winches, up to 60 tons. **(F-42)**

Ball, roller, and thrust bearings are described in a catalog issued by Norma Hoffman Bearings Corp. The catalog illustrates and describes each type of bearing and gives the correct bearing to use for any specified load-rating. **(F-43)**

A transfer pump for liquids is described in a bulletin published by Lincoln Engineering Co. This pump, known as the Speed-Flo, model 82230, transfers lubricants, thinners, coolants, naphthas, noncorrosive chemicals, and many other materials at 22 gpm. **(F-44)**

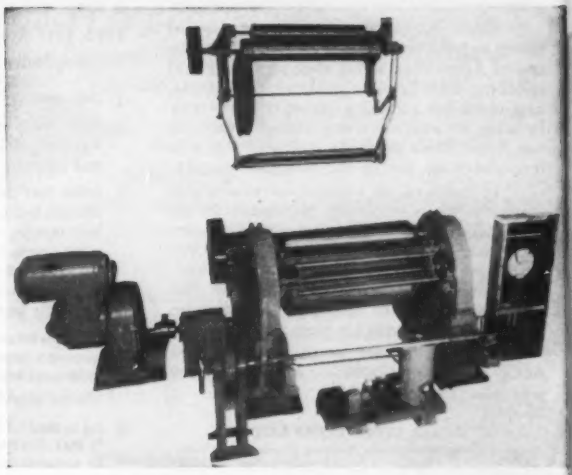
Water for fire fighting is discussed in a booklet issued by Carbide & Carbon

. . . Calender Rolls, both new and refilled, of all types, from America's most complete line of filled rolls, well deserve to be called "America's Finest" because of their long life and better performance.



We've Named These "Appleton" --you'll call them "America's Finest"

. . . Two Roll Embossing Calender . . . compact, ruggedly built . . . designed to operate with a minimum of power and maintenance . . . offers these features — 10" Bored Steel Roll, 20" APPLETON Special Wool Felt Roll, Air Pressure Cylinder with Recording Chart, Anti-Friction Bearings, Force Feed Oil Lubrication, Ceiling Folder, Direct Motor Drive with Variable Speed. Truly "America's Finest".



Custom Builders of Textile Finishing Equipment - Friction Calenders
Silk Calenders - Schreiner Calenders - Rolling Calenders

"The eye of the master will do more work than both his hands."

—Ben Franklin's Almanac, 1757

Touring thy plant with a critical eye can do more for the health of thy business than a trip to Washington.

—Acme Steel Notebook, 1951

Your management eye needs to be a dozen places at once these days—on supplies, on production, on deliveries, and all over your plant to keep efficiency high and morale up.

Your Acme Steel representative is ready to help bring you greater thrift in the use of Acme Steel's flat steel strapping and stitching wire in your packaging, shipping, and materials handling operations. He may be able to suggest more efficient ways to use Acme Steel products and accessories to improve your use of the available supply.

In spite of an increase in productive capacity, U. S. military requirements for some products make it impossible for Acme Steel to meet all the demands of the 50,000 customers, representing nearly every American industry, in these rearming times. But Acme Steel tries to help in every way we can—we always have for more than 70 years.

Information for ready reference on Acme Steel products is available upon request.

ACME STEEL COMPANY
Dept. TW-41, 2838 Archer Avenue, Chicago 8, Illinois
To contact the nearest of our 46 Service Offices in the United States and Canada, check your telephone directory, or write us.

5 things you can do to keep your Acme Steel Strapping Tools on the job:

1. Clean and oil every week.
2. Check and clean gripping dogs weekly. Replace when teeth are worn.
3. Detect worn punches and jaws early by checking sealed joints regularly. If in doubt, submit samples, identified by model and serial number, to Customer Service Department, Acme Steel Company.
4. Keep parts list and supply of spare parts handy to make minor repairs. Additional parts lists supplied upon request.
5. Ask us about the Acme Steel "3-WAY SERVICE PLAN" for equipment repairs.

ACME STEEL CO. CHICAGO

ACME STEEL

Acme Steel Company has enjoyed sound, steady growth under the American business system of open competition. Since 1901 we have made 286 consecutive dividend payments to our stockholders.

ACME STEELSTRAP flat steel strapping and ACME UNIT-LOAD carload bracing BAND, SEALS and TOOLS • ACME SILVERSTITCHERS and ACME SILVERSTITCH WIRE for box stitching • ACME-MORRISON METAL STITCHERS and BOOK STITCHERS • ACME-CHAMPION BAG STITCHERS • ACME HOT AND COLD ROLLED STRIP STEEL • ACME GALVA-BOND steel slat stock for Venetian blinds • ACME STEEL SPECIALTIES, including hoops, corrugated fasteners, nail-on strapping and other container reinforcements • ACME STEEL ACCESSORIES—snips, cutters, punches, tool mounts, reel stands, coil holders, coil trays.

Reader Service (Continued)

Chemicals Div. Unox penetrant is described as a liquid chemical made especially to improve the efficiency of water used for fire fighting. The penetrant is said not to injure textiles, wood, or painted surfaces. **(F-45)**

Rubber putty. Plastikon, is described in a new catalog section released by the B. F. Goodrich Co. This putty is recommended for many types of glazing and sealing. It is said to be particularly suitable where vibration, corrosion, or moisture exist. **(F-46)**

Demineralized water is discussed in a brochure released by Penfield Mfg. Co., Inc. The Penfield permanent-cartridge demineralizer is designed to transform tap water into demineralized water for laboratories and other users of up to 10 gph. of high-purity water. **(F-47)**

"Aluminum Data Book" is the title of a new 194-p. book published by Reynolds Metals Co. The book contains information in 117 tables of data and 61 illustrations designed to help the user make an intelligent selection of aluminum alloys. **(F-48)**

Lubrication is discussed in a 54-p. booklet issued by Fiske Bros. Refining Co. The booklet outlines the principles of lubrication and recommends the type of Lubriplate oils and greases to be used for any specific purpose. **(F-49)**

Metallizing salvage operations are featured in the February issue of *Metco News*, published by Metallizing Engineering Co. Illustrated are applications where users have built up worn areas on a wide range of parts with metallizing equipment. **(F-50)**

Bearing maintenance is featured in the first issue of *AFBDA Bearing Maintenance Report*, published by the Anti-Friction Bearing Distributors Assn. A file folder is furnished for this report and for succeeding issues, which will include all available maintenance information on every type of bearing. **(F-51)**

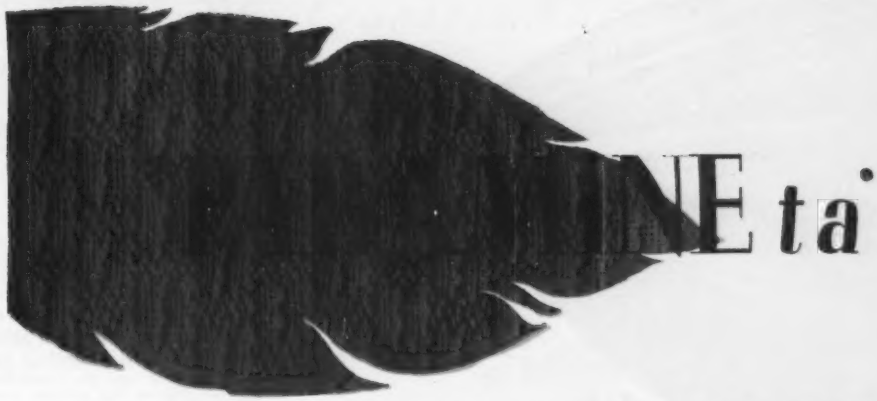
Round Table

(*Continued from page 146*)

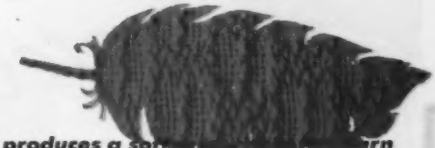
and give wide variation in properties other than viscosity. It is quite possible to have two sizes in a given concentration with the same indicated viscosity on a given instrument, but wide variation when measured with another instrument or at another concentration. The behavior of such sizes on a slasher might also be very different. Predicting use characteristics or performance of a size on the basis of viscosity alone is therefore a rather precarious procedure.

We do not mean to say that the so-called viscosity of a size is unimportant or that its measurement and its maintenance within limits is not desirable. It is definitely of value for a particular size when prepared and used in a uniform manner. The relationship between a size's "viscosity" and its performance must be established by experiment for each particular starch. This relationship does not necessarily hold when the preparation or use conditions are changed, or when a starch or starch derivative with different flow or filming characteristics is substituted for the original whose characteristics have been established.

Continuous viscosity measurement, as outlined by Mr. Williams, can well serve as a means for detecting variations in a size or in its preparation for use. But its use in predicting a size's performance



for durable softness and added sales appeal...



***PARAMINE T A® produces a soft** in addition to a pleasing surface finish. An efficient cationic product, it imparts a durable, long-lasting, full hand to cotton and rayon fabrics, woolen cloth and hosiery. It is highly effective on all styles of woven and knitted goods, including tricot and glove fabrics.*

***PARAMINE T A** is excellent for finishing cotton goods, plain dyed and printed in combination with gums, starches and similar products. On prints of very open design and blotch work, it gives a more even hand from selvedge to selvedge, and a smooth feel unobtainable with ordinary softeners. Write for details.*

Arkansas Co., Inc.
P. O. Box 210
Newark, N. J.

Gentlemen:
Please send me, without obligation:

- ☐ Full details on PARAMINE T A
- ☐ Sample and application procedure
- ☐ Details of mill demonstration

NAME _____ TITLE _____

FIRM NAME _____

ADDRESS _____

STATE _____

2-4-1

Arkansas Co. INC.

MANUFACTURERS OF INDUSTRIAL CHEMICALS FOR OVER 45 YEARS
NEWARK, NEW JERSEY

with **DECISION FOR PRECISION**

FULLERGRIPT Brush Improves Carpet Quality at Mohawk Carpet Mills

Mohawk's all-wool Chenille is America's luxury weave — a hall-mark of quality found in the finest homes. To maintain quality appearance, the nap must be raised so it can be sheared evenly. For this job Mohawk chose Fullergript, precision-engineered as an integral part of the shearing machine.

The brush is the longest one of its type — 240 inches over-all with an 18¼ foot brushing surface. Weighs 550 pounds...is statically balanced... mounted on a seamless steel tube...is concentric to machining tolerances.

Mohawk has found this Fullergript brush improves product quality because —

1. *There is no warping or distortion* — pile can be trimmed evenly.
2. *More burrs are raised to the top of the nap and sheared off.*
3. *Brush stays clean in operation* — no loading of lint between tufts . . . nylon filaments don't pick up lint.
4. *Faithful reproduction of color.*
5. *All-steel Fullergript backing* will not deteriorate.

Fullergript brushes are improving product quality, increasing production, and reducing costs in all divisions of the textile industry. To learn how Fullergript can help *you*, simply write to . . .

Power Driven

FULLERGRIPT BRUSHES — FULLER BRUSH CO.

INDUSTRIAL DIVISION
3594 MAIN STREET
HARTFORD 2, CONN.

when prepared in a different way, or from a different starting material, may be very misleading.

W. C. Black
Penick & Ford, Ltd.
Cedar Rapids, Iowa

Vinylon Synthetic

(*Continued from page 123*)

ing with cotton, wool, or rayon staple.

The manufacturing process of Vinylon includes several steps. First, carbide is produced from limestone and coal or coke. Limestone and coke are available in large quantities in Japan.

Second, polyvinyl alcohol is produced from the carbide. Acetylene is generated from the carbide, purified, dried, and subjected to hydration and oxidation to make acetic acid.

Vinyl acetate is then produced from acetic acid and acetylene with zinc acetate as a catalyst. The vinyl acetate is then dissolved in methanol and is polymerized into polyvinyl acetate with peroxide as a catalyst.

Caustic soda is added to the methanol solution, and the polyvinyl acetate is saponified into polyvinyl alcohol. The polyvinyl alcohol is precipitated, and the precipitate is pressed and dried into the basic material of Vinylon.

The fiber is spun on the wet or dry system from the polyvinyl alcohol, called poval. The poval is dissolved in hot water to prepare a 15% solution.

This spinning solution does not need to be aged, as in the viscose process, but it is treated to make it stable.

The spinning solution is extruded into a coagulation bath, dehydrated, coagulated, and spun into fiber. Heat treatment combined with acetalization imparts water resistance to this normally water-soluble material. It is then washed, oiled, and dried to form the finished product, Vinylon. It may be crimped or given other finishes to give it a desired appearance.

How Vinylon Behaves

Chemical Resistance. Vinylon has good resistance to acids. At room temperature, it resists attack by a 20% concentration of sulphuric acid; and at 158° F., it is durable under a 5% concentration.

It shows a very high resistance to attack by alkalis. At 212° F., it resists caustic soda at various concentrations.

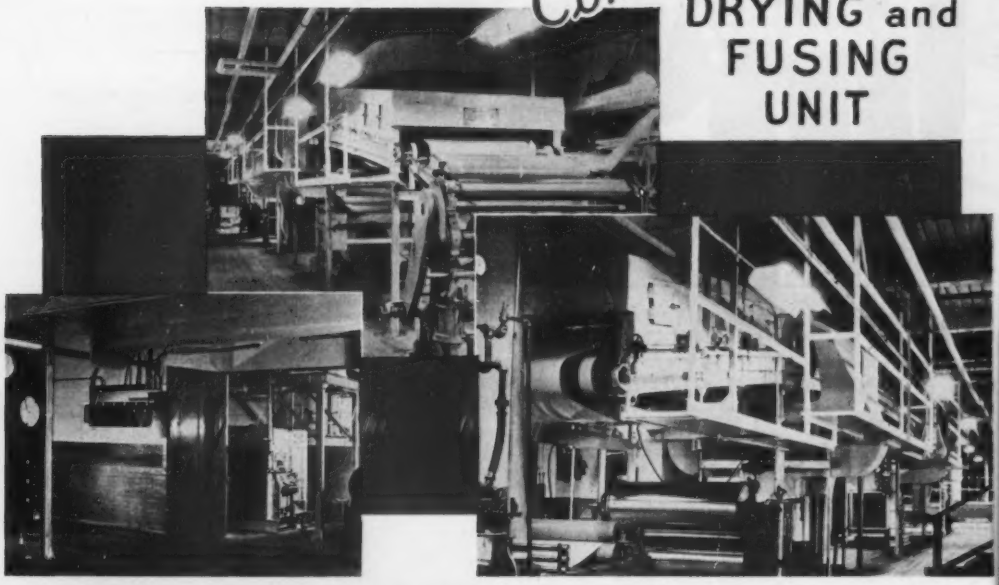
It swells and dissolves at temperatures over 140° F. in formic acid, hydrogen peroxides, formalin, phenol, and cresol. It shows, however, strong resistance to organic and inorganic solvents and to oils.

It also has excellent resistance to

RESPRO INC., *Cranston, R.I. completes*

3 drying operations with their new

ROSS *Combination* DRYING and FUSING UNIT



Three views of Respro's single Ross Dryer and Fusing Unit: Top, entering end; left, dryer with controls; right, arched section and conveyor belt.

As would be expected, Respro Inc. utilizes the most efficient type of processing equipment for producing the famous "Resproid" plastic sheeting. Their new Ross Dryer is designed to perform three operations—(1) drying of printed plastics,—(2) drying and fusing of organosol coatings on cloth,—(3) drying and fusing of plastisol coatings on cloth. For organosols the arched unit shown above is used 50% for drying and 50% for fusing. For plastisols it is used 25% for drying and 75% for fusing. Another striking example of how Ross Engineering is increasing drying efficiency with better designed and built drying units.

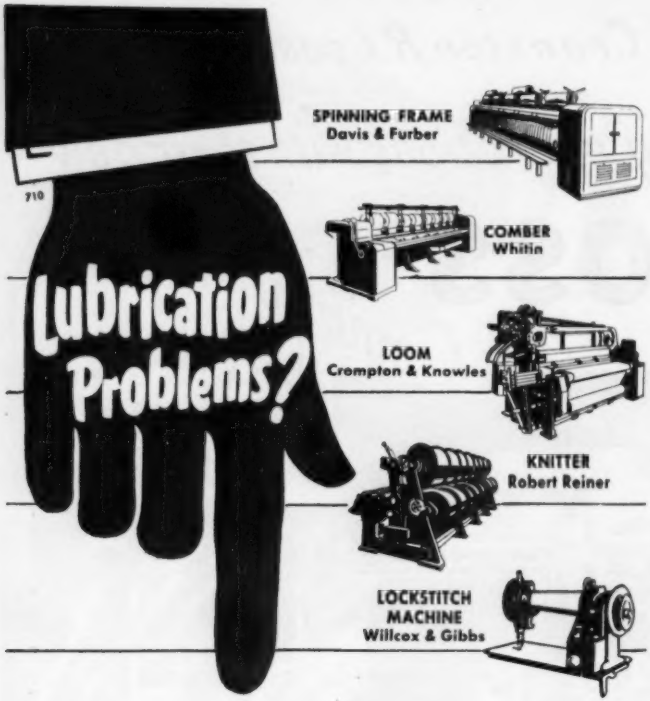
ROSS KS SYSTEMS

J. O. ROSS ENGINEERING CORPORATION

MANUFACTURERS OF AIR PROCESSING SYSTEMS

444 MADISON AVENUE NEW YORK 22, N. Y.

201 N. Wells Street, CHICAGO-6 • 79 Milk Street, BOSTON-9 • 9225 Grand River Avenue, DETROIT-4 • 600 St. Paul Avenue, LOS ANGELES-17
ROSS ENGINEERING OF CANADA, LIMITED, MONTREAL, CANADA • CARRIER-ROSS ENGINEERING COMPANY, LIMITED, LONDON, ENGLAND



not on these machines!

...they're all BIJUR equipped

Each maker of these machines had your best interest in mind when he built-in a Bijur lubricating system. Human carelessness and forgetfulness are eliminated by machines having built-in Bijur lubricating systems. These machines will never be shut down because they lack continous, proper lubrication. Make certain the machine you buy is furnished with a Bijur lubricating system.

Write for Bulletin 6A

BIJUR

LUBRICATING CORPORATION
Rochelle Park • New Jersey

attack by fungus, mildew, and insects. For example, no variation was noted after Vinylon was buried in soil or steeped in sea water for six months.

Physical Characteristics

Specific gravity, 1.30
Dry strength, 2.0 to 6.0 g. per den.
Dry elongation, 15 to 30%
Moisture regain (68° F., 65% r.h.), 4.5 to 5.5%
Wet strength (% of dry), 65 to 85%
Abrasion resistance, very strong
Relative strength at 212° F., 70%
Softening point in air, 424° F.
Relative strength at −58° F., 140%
Shrinkage in water at 212° F., 2.5%
Thermal conductivity, low

Pointers for Supervisors

(*Continued from page 148*)

receives a brochure describing a customer, what its needs are, what products it buys, how it uses these products, and some of the special problems of getting and maintaining that customer. Accompanying the brochure is piece of the customer's advertising and a sample of the customer's product.

Another slant on how a paper company emphasizes who's boss: The quality-control inspectors in plants of Scott Paper Co. are called "Consumer Representatives."

Are Machines Putting Men Out of Work?

The Michigan Tool Co. quotes Philip Murray, CIO President, as having said:

"The machine is displacing the man. . . ."

Are these facts? asks the Michigan Tool Company.

No, it answers in a booklet which points out factually that it isn't so. The facts are based on information furnished by the U. S. Depts. of Labor and Commerce.

Copies of the pamphlet can be secured from the company at 7171 E. McNichols Road, Detroit 12, Mich.

Answers to Textile Quiz

On Page 146

1. b. [TW, Feb., '51, p. 107]
2. a. [TW, Feb., '51, p. 109]
3. c. [TW, Feb., '51, p. 111]
4. d. [TW, Feb., '51, p. 136]
5. d. [TW, Feb., '51, p. 149]
6. b. [TW, Feb., '51, p. 153]
7. d. [TW, Feb., '51, p. 155]
8. a. [TW, Feb., '51, p. 164]
9. c. [TW, Feb., '51, p. 222]
10. b. [TW, Feb., '51, p. 246]

No further need for

A "POLAR" GROUP

AFTER FIVE YEARS OF

PIONEERING in the use of NON-IONICS for wool scouring with the IGEPALS*

With the aid of Igepals – non-ionic surfactants – and of simple controls with existing equipment, the long-established "art" of wool scouring has acquired scientific stature.

Soap and the ever necessary alkali pose problems of lime scum and finished wools of harsh "hand"—"polar" synthetics suspend wool soils too well, retard settling out, increase the redeposition factor.

By contrast, an Igepal – with its non-ionic, non-polar and efficient detergent and emulsifying action, even in hard water – needs no alkali to remove residual fats and suints after the first bowl. The wool is not only thus cleaned, but all danger of carrying alkali into the dryer is removed.

These non-ionic surfactants have high cleansing efficiency in a neutral bath – no fibre substantivity and complete rinsability. The economical use of an Igepal can reduce the wool grease content to as low as 0.3%. The resulting improvement of the wool in softness, loftiness and whiteness – compared with a soap scour – can be fully appreciated only after large-scale trials.

We invite you to call upon our Technical Department for assistance in problems of scouring raw wool.

* "IGEPAL"—Reg. U. S. Pat. Off.

ANTARA PRODUCTS

DIVISION OF

GENERAL DYESTUFF CORPORATION

435 HUDSON STREET • NEW YORK 14, NEW YORK

BRANCHES

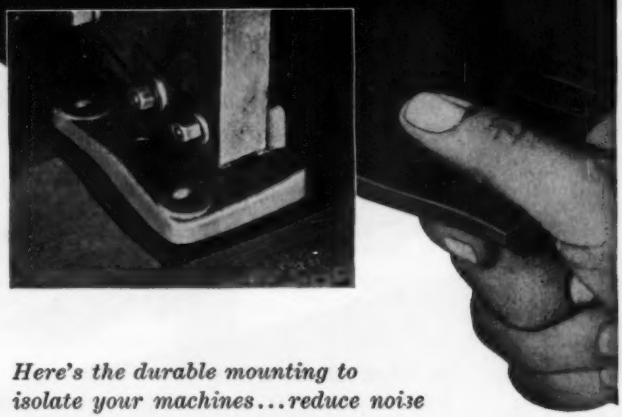
Boston • Providence • Philadelphia • Charlotte, N. C. • Chicago • Portland, Ore. • San Francisco

In Canada: Chemical Developments of Canada Limited, Leaside, Toronto 17

This Improved MILL-TESTED

ISOMODE TEXTILE PAD

Absorbs Vibration...Saves Money



Here's the durable mounting to isolate your machines...reduce noise
...anchor equipment without bolting
...cut maintenance costs

Actual mill installation and tests by several large Southern producers of textiles prove that these single-ribbed Isomode* Pads are not only one of the most economical mountings, but also one of the best. They do a superior job of isolating vibration. They work under present legs of equipment – on any type of flooring.

By their action, Isomode Pads help increase loom life, reduce shut-down time, and thereby step-up production. Due to the unique ribbed construction, these pads act as a spring which absorbs the forces and vibrations created by the equipment which are normally transmitted to the floor. You'll find that this reduces energy-sapping noise, as well as strains on machines and floor. Moreover, this vibration control eliminates need for bolting in most cases. Your machines "float" on Isomode Pads, yet they stay put. As a result, effect of uneven floors on machinery is corrected and undue wear minimized.

Isomode Pads are easily installed. Merely cut to size required by legs of equipment, allowing for ⅛ or ¼-inch overlap to securely bed down the leg. Made of Du Pont Neoprene, the pads resist aging, oil, heat, moisture.

See what a big improvement Isomode Textile Pads can work in your own operations – and at what surprisingly low cost. Write for full details.

*Trade Mark Reg. U.S. Pat. Off.

THE MB MANUFACTURING COMPANY, INC.
1084 State Street, New Haven 11, Conn.

Distributed by: Mathews Equipment Co., Providence, R. I.
R. B. Dorman, Atlanta, Ga. O. D. Landis, Charlotte, N. C.

Useful Accessories

(*Continued from page 140*)

high-pressure or volume greasing. An oil pump is also provided; grease and oil are dispensed through 10-ft. hose. All units can be dismounted from the truck for use at distant points. The lubrication cart is said to simplify the oiler's work and give better lubrication results. (U-6)

Miniature Speed-Drive Adjustment

A new miniature variable-speed drive with lever-type control has been developed by Metron Instrument Co., 432 Lincoln St., Denver 9, Colo. The new type 4B is a small, compact, sealed unit with ratings up to 2 lb.-in. of torque, 0.025 hp., and 20,000 rpm. The ratio is infinitely variable from ½ to 6. The 4B is said to be advantageous in applications requiring remote or automatic control. The actuating lever carries a pointer which indicates ratio setting on top of the unit. A wide variety of control techniques is possible with the use of linkages or cams. (U-7)

New Mercury-Clutch Coupling

A complete unit consisting of a series-E mercury clutch with provision for mounting a standard flexible coupling between the clutch and the electric motor has been developed by Automatic Steel Products Inc., Canton 6, Ohio. The clutch is designed especially for installation on the shafts of integral-horsepower electric motors up to 15-hp. rating. The new mercury unit in conjunction with a flexible coupling is said to provide a satisfactory connection between the motor shaft and the driven shaft without the necessity of maintaining exact alignment. (U-8)

New Safety Valve

A new air-control solenoid valve has been announced by Ross Operating Valve Co., 120 East Golden Gate, Detroit 3, Mich. The Ross Safety Valve was developed in cooperation with safety engineers and is said to offer a greater degree of safety than usual for operators. Even if the air or electrical supply should be interrupted, the valve is designed to move to a safe position. The elimination of all springs and the use of a clapper-type solenoid are what adds to operators' protection. Groups of valve parts are removable as assemblies; thus maintenance is simplified. (U-9)

Overload-Warning Signal

An overload-warning signal designed to protect hoists and cranes as well as the safety of the operator has been developed by W. C. Dillon & Co., Inc., 1421 South Circle Ave., Forest Park, Ill. The Dillon overload-signal device is completely self-contained and consists of a "U"-shaped pressure bar to which is mounted a sensitive micro-switch. A load-setting screw permits a setting for any point between 500 and 10,000 lb. If this load setting is exceeded in service, a red warning lamp

Reduces Rayon 'Seconds'

'Hard Size' is minimized by a slower congealing warp size

Try a quick run-off in your mill. You'll find that **NU-FILM** — *a specially prepared warp sizing gum for spun rayon* — will not congeal or set-up in the feed line or in the size box during normal operation . . . minimizes imperfection rejects caused by 'hard size' . . . washes out easier than any other sizing starch or gum.

Photo courtesy of JANTZEN

NU-FILM can also be worked into your present formula to greatly minimize 'set marks.' Its high adhesiveness and strong, flexible surface film actually increases the tensile strength of the yarn.

We'd like to test these NATIONAL Textile Specialties and Starches:

- ☐ Please send test samples
- ☐ Have a representative call
- ☐ SPUNJEL (described above)
- ☐ AMBERTEX M for screen and machine printing
- ☐ FLOTEX to replace natural printing gums
- ☐ FLOCK ADHESIVE 970 for chenille printing
- ☐ FARILON for Rapidogen printing and backfilling
- ☐ CLEARFILM for bright, lustrous finishes on cotton and rayons
- ☐ VAT THICKENER 36 for rayon and cotton

Mr. _____

Company _____

Address _____

City _____ Zone _____ State _____

For more information, write direct or use Reader Service post card.

1 better buy Bemis Burlap

It's Bemis for Tite-Fit Tubing, too

This versatile burlap tubing saves labor, time and material in packaging. The 2-way-stretch makes it fit almost any shape and a wide range of package sizes. Ask the Bemis Man about Bemis Tite-Fit Tubing.

Bemis

America's No. 1 Bag Maker and Burlap Importer

Baltimore • Boise • Boston • Brooklyn • Buffalo • Denver
Charlotte • Chicago • Cleveland • Detroit • Houston
Indianapolis • Jacksonville, Fla. • Kansas City • Norfolk
Los Angeles • Louisville • Memphis • Omaha • Phoenix
Minneapolis • New Orleans • Philadelphia • Pittsburgh
New York City • Oklahoma City • St. Louis • Salina
Salt Lake City • San Francisco • Seattle • Wichita

lights up and a shrill warning is emitted by the klaxon. (U-10)

Pressure-Tape Dispenser

A new dispenser that measures and slits pressure tapes has been announced by Better Packages, Inc., Shelton, Conn. Big-Inch #4 slitter automatically measures and slits with each lever stroke and is said to offer many advantages to industrial users. The dispenser is adjustable to four set lengths—1¼, 2¼, 3, and 3¾ in.—and will cut cloth, most paper, cellulose acetate, cellophane, and vinylite electric tapes with *a heavy-duty replaceable razor-blade cutter.* It is claimed that tape costs can be reduced *by slitting the wide rolls to narrow widths* as needed. (U-11)

Rapid-Load Lift Truck

A new aluminum single-unit oil-tank-and-pump combination load-lift truck has been developed by Market Forge Co., Everett, Mass. Known as the Marforge Lightning Load-Lift, the new truck is designed to raise loads 25% more easily and 25% faster. The truck is lowered by a simple right-angle flick of the handle, a feature that eliminates stooping or bending to lower loads. The truck raises and lowers with the same handle whether the operator is sitting or standing. The new one-unit pump also eliminates the need for gaskets, dust boot, and needle-type valve. The hydraulic fluid is contained in the unit above the dual pumps. This position allows the fluid to be circulated by gravity. (U-12)

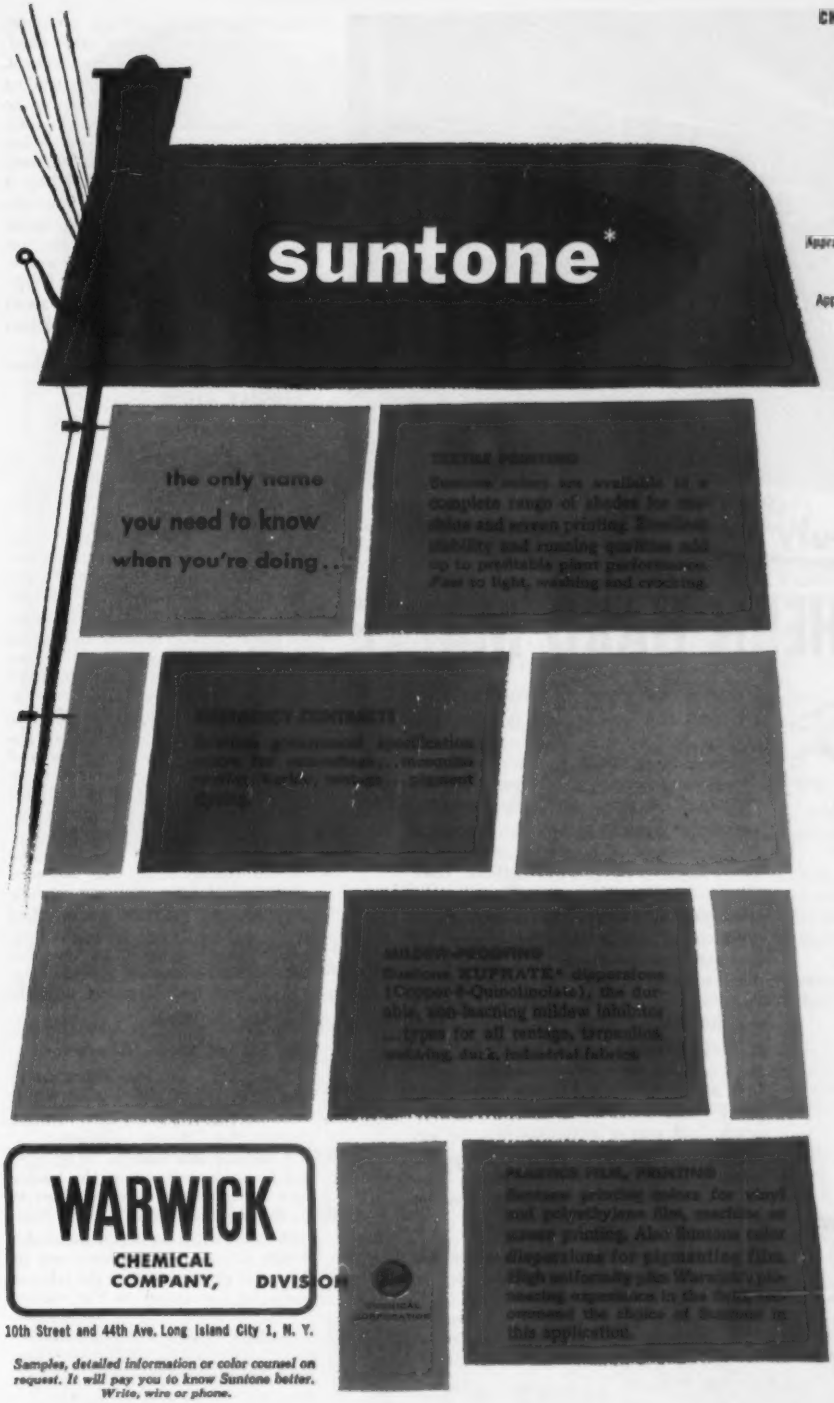
Exploring the Community

(*Continued from page* 142)

But the prize story is that of the mill which had a suggestion box placed right next to the outgoing-mailbox in the hall of the mill office. One morning a year or so ago one of the young clerks in the office dashed in and announced that he was a proud papa of a 9-lb. boy, then he dropped about a hundred birth announcement cards into what he thought (in his excitement) was the mailbox. Months went by and the suggestion box which was seldom opened, and never by any scheduled plan, was unlocked by the porter who saw all those stamped addressed envelopes in it, and who just mailed them and said nothing. Next day all the young clerk's friends got the birth announcements of the new baby, who by that time was a year old and learning to walk! And the postman returned to the mill the suggestion forms filled with such stuff as general improvement of the operations!

Handling System Important . .

A suggestion box with no proper method established for handling the



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Appramine* cationic softeners

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Organosol coatings for textiles and paper

Plastisol for coating and molding

Setoin* textile resins

Sulfanole* synthetic detergents

Suntone* pigment printing colors for textiles and plastics

Warcofix* color fixatives

Warco* GFI gas fading inhibitor

Warcolene* finishing oils

Warconyl* fire retardants

Warcosan* wetting and rewetting agents

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Weave-Lok* non-slip finish.

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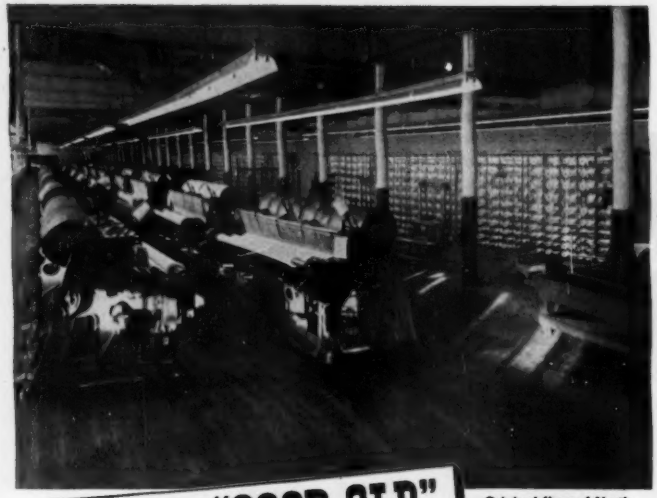
10th Street and 44th Ave. Long Island City 1, N. Y.

Samples, detailed information or color counsel on request. It will pay you to know Suntone better. Write, wire or phone.

*Trade Mark Reg. U.S. Pat. Off.



it's truly "GOOD OLD"

Original floor of Northern Hard Maple, New Bedford Knitting Co., New Bedford, Mass.

NORTHERN HARD MAPLE

the finest floor that grows

Strictly in the tradition of America's textile crafts, this New England mill floor was laid years ago with resilient, enduring Northern Hard Maple. Its builders turned, almost instinctively, to this splendid product of our native forests, secure in the knowledge gained through the experience of generations of textile manufacturers. They knew that good Northern Hard Maple is preferred for sound reasons. Its close grain structure offers no crevices; its pronounced stability of dimension makes for tight joints—hence little chance for dirt to lodge. Simple sweeping routine keeps it clean and attractive. It doesn't splinter. Its resilience resists dents. It's bright, light-reflecting, cheerful. It "feels good" under foot—workers prefer it. It *lasts* and *lasts* . . . and, come refinishing-time, "there's always a new floor underneath." If you're planning new or expanded mill facilities, be sure to specify MFMA-graded Northern Hard Maple. You know it's right in every respect. And it's available. And it's economical.

See Sweet's
Architectural, 13i/MA, for specifications and full data.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 592, Pure Oil Bldg., 35 E. Wacker Drive
CHICAGO 1, ILLINOIS

FLOOR WITH NORTHERN HARD MAPLE
BEECH AND BIRCH

suggestions placed therein is simply a futile gesture. On the other hand, a well-planned suggestion program can open the field to better understanding of small things, and can prove to be an incentive measure for more profitable mill operation. A suggestion box can be the partnership bond between workers and management. Making it so is simply a matter of the employees getting the suggestion habit. It is a habit that pays off too, for since the suggestion-box system was inaugurated at the Reigel Textile Corp., Ware Shoals, S. C., in 1947 about $6,000 has been won by employees for new and workable ideas.

Tractor Train

(Continued from page 107)

connected by a ramp, the other to operate on two different levels. (All levels are connected by a central elevator.)

Elevators throughout the plant would be designated as receiving and dispatching stations. Each department would be made responsible for handling its trailers to and from the nearest elevator. The elevator men would move trailers between the various floors, leaving them in adjacent yards provided for the parking and assembling of trailers. Tractors would transport trailers between the various elevators. A pre-determined number of trailers would be allotted to each department permanently; each trailer clearly marked showing its destination, and to which department it belonged.

The proposed plans were presented to the management, and overseers were consulted for estimates on how the proposed methods would affect personnel under their supervision. From these estimates, an objective labor-reduction program was drawn up; and on this basis necessary expenditures were approved.

The Second Step—Alterations

The plant comprises several multi-storied buildings, the first of which was erected many years ago. Bridges connect the different buildings.

A considerable number of changes had to be made to allow the tractor train to maneuver freely to deliver at all the required points. As no common level existed for all the buildings, it was necessary to reinforce one of the newer elevators so that the tractors could be transferred to the various levels. In many places, main traffic aisles were narrow and often ran between machinery. With few exceptions, space around elevators was very limited.

At other points, floors needed reinforcement. Several narrow doorways

IMPROVED
Emery Twitchell Oils For SANFORIZED FABRICS

Now...Emery Twitchell Oils 7240 and 7250 Give You 4 Extra Advantages

1. **IMPROVED COLOR and ODOR STABILITY...** will not yellow or stain fabrics. Cannot turn rancid on fabrics during storage.
2. **GREATER HEAT STABILITY...** Major improvement in heat stability gives maximum resistance to volatilization and decomposition during processing.
3. **INCREASED RESISTANCE TO SALTING OUT...** compatibility with finishing additives such as salts and other weighting agents is improved considerably.
4. **GREATER REWETTING ABILITY...** Faster rewetting increases fabric throughput . . . gives greater overall production efficiency during compression shrinkage. More uniform rewetting results in uniform shrinkage.

CHOOSE THE TWITCHELL OIL WHICH BEST MEETS YOUR REQUIREMENTS

PRODUCT	FIBER LUBRICATION	REWETTING	SOFTNESS	STAINING
Twitchell 7250	Very Good	Fastest	Softest	None
Twitchell 7240	Excellent	Fast	Moderate	None
Twitchell 7231	Excellent	Medium	Slight	None

In addition to the major improvements listed above, these new Emery Twitchell Oils provide the following characteristics:

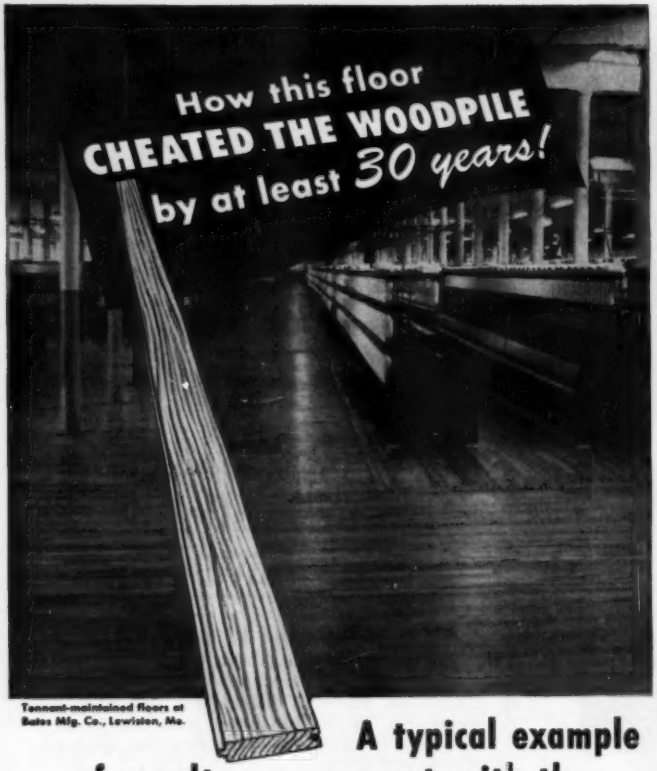
FIBER LUBRICATION—The excellent lubrication characteristics provide for easy and uniform rearrangement of the fibers during the preshrinking of fabrics. Prevent sticking at the shoes, enable increased processing efficiency.

REWETTING—High rewetting speeds for faster processing and uniform rewetting of fabrics. Treated fabrics retain rewetting properties indefinitely.

SOFTNESS—For various fabrics and finishes, Twitchell Oils provide the different degrees of softness required to meet specific needs.

For a recommendation to fit your particular need, contact our Sales Service Department.

EMERY INDUSTRIES, INC.
Carew Tower · Cincinnati 2, Ohio



Tennant-maintained floors at Bates Mfg. Co., Lewiston, Me.

A typical example of results you can get with the...

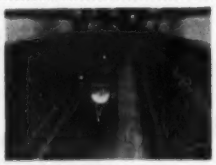
TENNANT FLOOR MAINTENANCE SYSTEM

Transformed like magic, this 30-year-old floor —once dark, rough and spongy from scrubbing—is now good for another 30 years. Saved from costly, premature replacement, it's been made bright, smooth and durable again—by low-cost reconditioning with the TENNANT System.

RECONDITIONS your floors. Gets rid of dark, rough, oil-soaked fibers . . . provides a smooth, bright, new-wood surface.

HARDENS floor surface by special sealing process . . . fills, binds and toughens fibers to resist dirt penetration.

DRY CLEANS; ends scrubbing! Avoids muss, saves manhours, reduces accidents . . . assures cleaner floors at LESS COST!



YOUR FLOORS STAY CLEAN longer when dry-cleaned instead of scrubbed! With this Tennant Floor Machine, dirt, grime and traffic stains are whisked off and picked up in 1 operation. Leaves smooth, hard, dirt-resistant surface . . . only daily care needed is fast, easy sweeping with dry cotton mop. No muss, easy to use; keeps floors looking like new.

- **Reduces floor cleaning costs.**
- **Makes floors easy to clean.**
- **Prolongs floor life, aids safety.**

G. H. TENNANT CO.
2586 North 2nd Street
Minneapolis 11, Minnesota

Write today! Ask for "New Floors From Old" article, also "Textile Floor Maintenance" bulletin, etc.

***BATTERIES ARE CHARGED** and trucks serviced at a central location which also serves as intra-mill-trucking headquarters.*

were widened and a few new ones broken through. Narrow, winding traffic aisles between machines were replaced by straight, wide aisles located beside the walls. In one instance, in order to by-pass machinery, a connecting bridge was erected. Space around elevators was increased.

To accomplish these improvements it was necessary to move some machinery. The total cost, however, for making these changes was surprisingly low.

Safety precautions were not overlooked. Routes travelled by the tractor train were zoned with yellow borders, and the arch of doorways through which the tractor train would pass was painted with black and yellow stripes. Doors opening directly onto the traffic route were electrically connected to red lights which burn when doors are opened. These lights warn the tractor driver to be on the alert. Tractor operators were instructed to exercise caution at all times and to blow horns and slow down at blind corners.

The Third Step— Engineering & Design

A central location near the reinforced elevator was selected for the construction of a battery-charging station and garage. This station also serves as the intra-mill traffic headquarters. It is completely furnished and includes equipment for Airlube greasing, a chain block, stands for batteries, cabinets, etc. The tractors and trailers were furnished by the Mercury Mfg. Co., represented by Melville Machinery Co., Ltd., of Montreal. Tractors are powered by 18-cell Exide batteries. The power supplied is substantially in excess of the calculated requirements, but conditions have already shown that this extra power can be put to good use.

While tractors and auxiliary equipment are standard, a certain amount

CALCO dyelines

Advertisement No. 19 of a series

PREPARED BY AMERICAN Cyanamid COMPANY CALCO CHEMICAL DIVISION,
DYESTUFF DEPARTMENT, Bound Brook, New Jersey
New York • Chicago • Boston • Philadelphia • Charlotte • Providence

Calco®

Things Look Brighter with CALCOFLUOR WHITES

Calcofluor* Whitening Agents are used to dye textile fibers in processes similar to the conventional dyeing procedures. The Calcofluor White line offers products for application on practically any

fiber such as wool, silk, nylon, acetate, cotton, viscose, etc.

Their principal application is for making whiter whites, but they can be used also for brightening many pastel shades. They can be applied in conjunction with the bleach, after the bleach, or instead of a bleach to produce whiter or brighter fabrics than would be produced without them.

CALCOFLUOR WHITE RW
CALCOFLUOR WHITE RW SINGLE
For wool, silk, nylon and acetate fibers

CALCOFLUOR WHITE B
CALCOFLUOR WHITE 3R
For cotton or viscose rayon

Your Calco representative will be glad to supply you with samples and information concerning their application and properties on request.

*Trade-mark

Vat Dyes Impart Valuable Properties To Wool

The use of Vat Dyes for coloring wool contributes several valuable attributes to the dyed material.

1. A wide range of shades, even in pale tones, can be formulated to possess such excellent fastness to light exposure that they will satisfy even the exacting demands of automotive fabrics.
2. The shades show excellent fastness to wet manufacturing processes and to washing.
3. The tensile strength, resilience and handle of the wool, and its amenability to subsequent manufacturing processes, are superior to that of wool which is dyed with the orthodox types of fast wool colors.

Probably the most generally useful process, and the easiest to control, uses caustic soda as the alkaline agent in the dyebath and modifies the normally deteriorating action of the caustic soda on wool by the protective action of sodium lignin sulfonate. This process can be operated by regular dyehouse personnel with only the usual degree of supervision, and it is today in routine use. In a typical procedure:

1 lb. Calcosol* Vat Dye Double Paste, is reduced in
4 gal. of water containing
1 lb. of Caustic Soda and
1 lb. of Sodium Hydrosulfite

The reduced dye is added to the dyebath which contains—per gallon:

¼ oz. to ½ oz. Caustic Soda
¼ oz. to ½ oz. Sodium Hydrosulfite

The maximum temperature should not exceed 120°F. During the dyeing period, salt is added to increase the color yield. When the dyeing period is at an end, the dyed material is rinsed, oxidized and thoroughly acidified and scoured with a synthetic detergent.

*Trade-mark

A New Calco Soluble Vat

A new addition to the line of Calco® Soluble Vat Dyes is Calco Soluble Vat Scarlet HB. This product is recommended for printing bright scarlets on cotton or viscose fabrics. When applied by the usual procedure for Soluble Vat dyes, it produces a clear, pleasing scarlet, which prints and ages uniformly to the proper shade.

Calco Soluble Vat Scarlet HB will eliminate many matching problems which are now existent when trying to produce scarlets by mixing pink and orange. It has good all around fastness properties, some of which are: Light . . . 4-5; Wash Test No. 4 . . . 5; Chlorine 0.3% . . . 5; Acid Perspiration . . . 5; Alkaline Perspiration . . . 5; Dry Cleaning . . . 5; Hot Pressing . . . 5; Plissé Printing . . . 5.

Calco Soluble Vat Scarlet HB should be tried in order to appreciate its good properties. Ask your Calco representative for a sample.

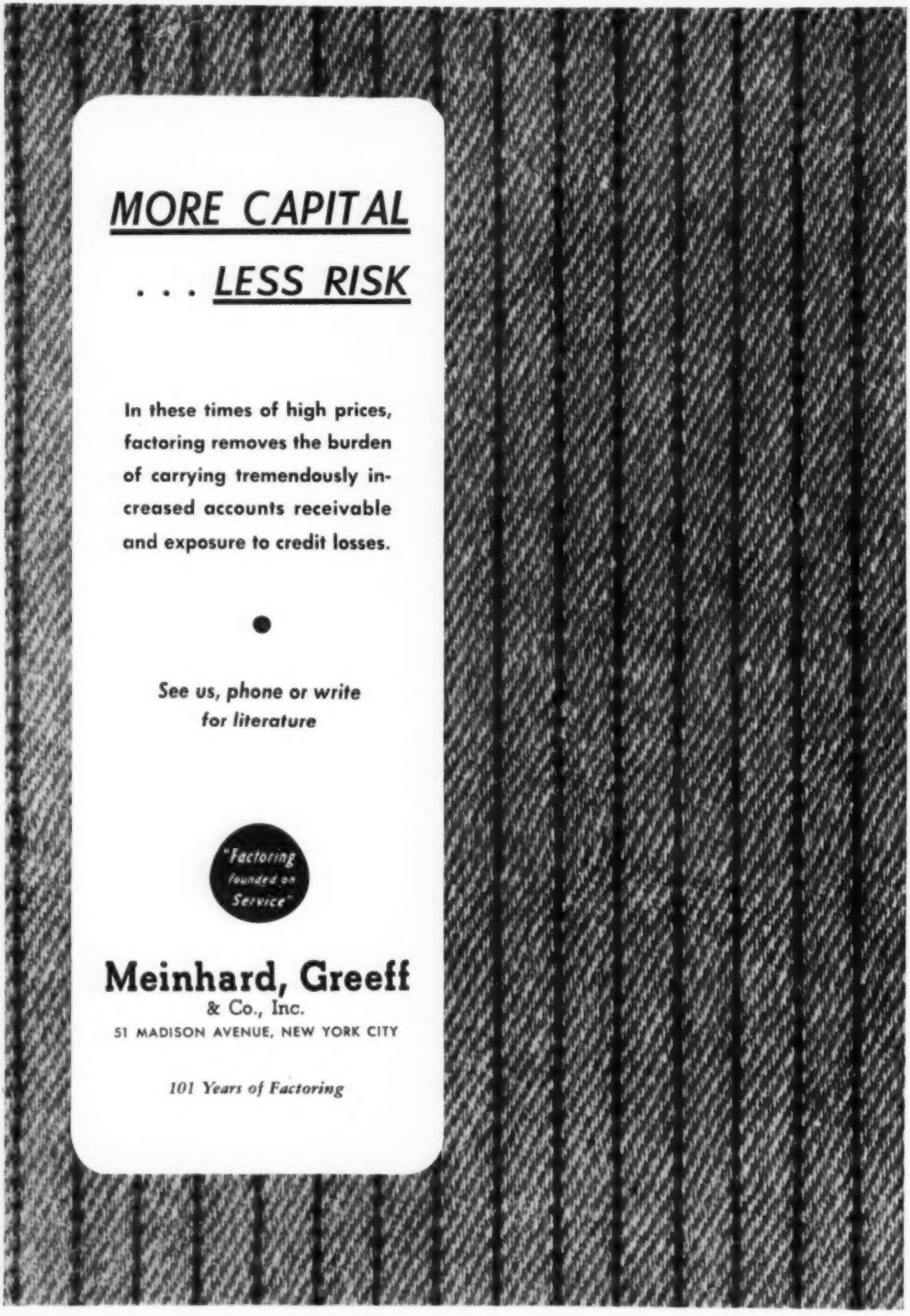
For the Textile Bookshelf

Vat Dyeing of Wool: Second Printing (Calco Technical Bulletin #797). Describes the new process for the application of the complete line of Indigoid and Anthraquinone Vat Dyes to certain types of wool materials.

Studies of Wool Dyeing: The Influence of the Cuticle in the Dyeing of the Wool Fiber by H. E. Millson and L. H. Turl (Calco Technical Bulletin #817). Report of important experiment revealing that the rate and degree of dye penetration are influenced by the character of both cuticle and cortex as well as of the dye itself.

CREDIT UNION

10,510 loans, totaling $1,291,000, have been made to Calco employees through the Credit Union since it has been in existence.



MORE CAPITAL

. . . LESS RISK

In these times of high prices, factoring removes the burden of carrying tremendously increased accounts receivable and exposure to credit losses.

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101 Years of Factoring

of ingenuity had to be used to procure trailers suitable for textile items and particularly for the special needs of this plant. Large box trailers were designed for carrying maximum loads of spinning bobbins to the conditioning machines. Once at the conditioning machines, the boxes containing the spinning bobbins are raised electrically and emptied. These trucks also receive clean bobbins discharged from the Terrell bobbin strippers.

Special trailers were designed for carrying two loom beams each. For section beams, a trailer built of 4-in. channel and only 11½ in. high was provided. This trailer allows the beam to be lowered directly from the warper. Trailers with ramps were designed, each to hold two ordinary box trucks containing twister bobbins, to make these trucks suitable for handling by the tractor-trailer system.

Labor Savings

When the new system was put into operation, the estimate for labor savings earlier compiled with the coperation of the overseers was re-examined. Steps were initiated to take off labor not required as a result of the new mechanized handling methods.

It was found that the new system affected not only truckers, but numerous other workers. A typical development is illustrated in the following case:

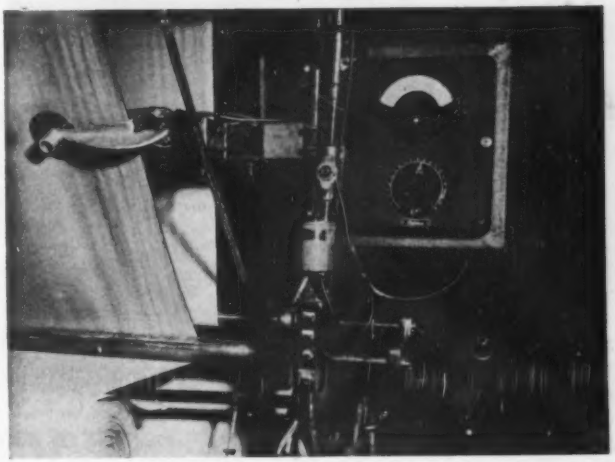
Warper-beam truckers formerly doffed the beams and transported them to the slasher room, where they unloaded them, placed empties on their dollies, and returned with these empties to the warper room. The tractor-trailer system eliminated about 80% of their work load, leaving 20% which had to be performed by other personnel if these truckers were to be taken off the job.

In most cases, this amount of work could be absorbed by the remaining workers without dislocation or hardship. In a few instances, inducements consisting of several cents an hour increase in pay were offered to those taking on extra work—in this particular work—in this particular case, to a yarn distributor in the warper room, and to the slasher-tender helpers in the slasher room. Manual trucking was thus gradually eliminated. The overseers' estimates proved to be sound but too conservative, as the total labor reductions surpassed the estimate by over 40%. Happily, it was not necessary to lay off help as production was on the increase and most of the personnel displaced was easily absorbed in other jobs in the plant.

Savings—$25,500 Yearly

The total cost for the equipment

No More Yellow Whites When Bleachery Installed DRIMETER Moisture Control On Tenters



A leading bleachery found that, when temperatures were raised to speed up drying, broadcloth shirtings were discolored due to degeneration of chemicals used in the finish.

DRIMETER technicians demonstrated that, when an accurately controlled percentage of moisture was retained in the cloth, through the use of the DRIMETER on the tenters, the cloth temperature was maintained at a safe level. Therefore, there was no discoloration as a result of the increase in heat required to meet production schedules.

DRIMETER, which accurately measures moisture content of fabrics during processing and indicates the percentage on a calibrated dial, solved this and similar problems for many of the most efficient textile manufacturers and processors.

DRIMETER technicians will gladly study textile problems and advise you of what can be expected from correct application of Drimeter Moisture Control. Write today for illustrated folder and engineering report.

Fielden INSTRUMENT CORPORATION

Canadian Agent: ELECTRODESIGN
145 Normand St., Montreal

2920 NORTH 4TH STREET,
PHILADELPHIA 33, PA.

For more information, write direct or use Reader Service post card.

Just how good CAN you get?

It takes a whale of a golfer to shoot par for the course . . . but tournament *champions* shoot even *better* than par, by a few strokes. That "few strokes" improvement results from special attention to the fine points of the game.

In textile production, too, even *good* efficiency can be improved. For instance, it's entirely possible that a certain starch . . . perhaps even tailor-made to your own specifications . . . could contribute to an efficiency gain.

Why not call your Anheuser-Busch representative? He'll be glad to come and talk it over.

CORN STARCHES
DEXTRINES
GUMS
CORN SYRUPS

Phone or write

ANHEUSER-BUSCH, INC.

CORN PRODUCTS DEPARTMENT

ST. LOUIS

ST. LOUIS, MO. 721 PESTALOZZI
CHARLOTTE, N. C. 607 JOHNSTON BLDG.
NEW YORK, N. Y. 33rd & 12th AVE.

and installation, moving of machinery, building alterations, additions, and the new bridge was under $45,000.

Employing previous methods and equipment, the cost in direct labor for intra-mill trucking had amounted to $40,000 per year. The mill was then operating basically one 10-hr. shift.

The transportation system, now operating on two 8-hr. shifts, is costing the company $14,500 per year — $10,000 for labor and $4,500 for maintenance, depreciation, interest, charging current, and insurance. Therefore, the plant is in a position to realize a yearly savings of $25,500 from the tractor-trailer system alone.

In addition, at a cost of about $15,000, extensive improvements were made in the yarn-conditioning and bobbin-stripping departments. In these places, belt conveyors, bobbin bins, electrically operated dumpers, and roller conveyors were installed. Electric hoists were provided for the handling of section beams in the slasher room. A very effective system for handling yarn to winder and spooler, put in several months ago, is functioning satisfactorily.

These improvements were independently responsible for a further reduction in labor costs amounting to $14,000 per year.

Flywheel Loom Motors

(*Continued from page 125*)

tion in the amount of heat produced qualifies the motor to take on a bigger load.

1,200 Rpm. Instead of 1,800

Many mills prefer 1,200-rpm. motors over 1,800 rpm. for two reasons. First, pinions with 14, 15, or 16 teeth, as are required with 1,800-rpm. motors on mutli-shuttle looms, are mechanically weak and fail excessively in service. Such failure may also cause destruction of the large motor gear and mean upwards of a half hour's loss of production at each such failure. Second, changing one tooth of a pinion on an 1,800-rpm. motor means a change of 10 picks per minute weaving rate. A one-tooth change on a pinion used with a 1,200-rpm. motor results in 6⅔-ppm. change. Thus the slower-speed motor permits "inching up" loom speed as needed.

However, there is a very important difference between operating characteristics of looms driven by 1,200-rpm. and 1,800-rpm. motors. Such motors cannot be indiscriminately interchanged without giving due consideration to causes for the difference. When going to the slower-speed motor, there

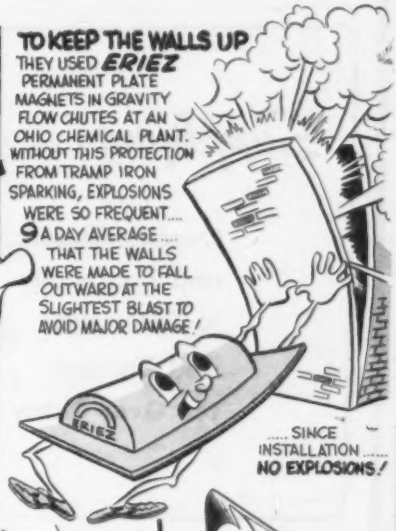
ERIEZ MAGNETIC ATTRACTIONS

ERIEZ MANUFACTURING CO, ERIE, PA., U.S.A. • PRODUCERS OF MAGNETIC SEPARATORS AND SELLERS OF (RCA) ELECTRONIC METAL DETECTORS

IT'S A FACT... 734,254 BEEF LIVERS AND 5956 CARCASSES WERE CONDEMNED IN A YEAR BECAUSE OF ABSCESS AND PERICARDITIS CAUSED BY ***TRAMP IRON*** IN CATTLE FEED LOSS...OVER **3** MILLION DOLLARS! ***ERIEZ ATOM***AGNETS FIGHT THIS BECAUSE THEY WON'T LET TRAMP IRON PASS.

TO KEEP THE WALLS UP

THEY USED ***ERIEZ*** PERMANENT PLATE MAGNETS IN GRAVITY FLOW CHUTES AT AN OHIO CHEMICAL PLANT. WITHOUT THIS PROTECTION FROM TRAMP IRON SPARKING, EXPLOSIONS WERE SO FREQUENT.... **9** A DAY AVERAGE.... THAT THE WALLS WERE MADE TO FALL OUTWARD AT THE SLIGHTEST BLAST TO AVOID MAJOR DAMAGE!



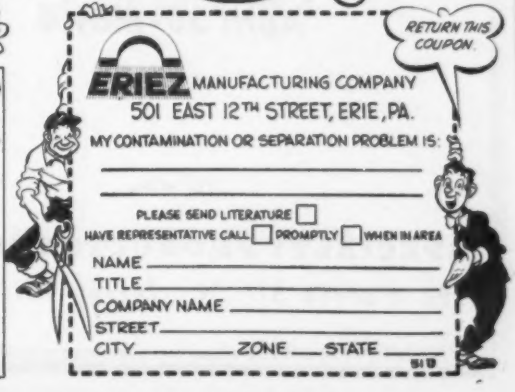
.... SINCE INSTALLATION ..... **NO EXPLOSIONS!**

YOU DON'T HAVE TO BEAT THIS DRUM

... FOR RESULTS. THE ***ERIEZ*** MAGNETIC *DRUM* AUTOMATICALLY REMOVES STRAY IRON.... SOME DANGEROUS TO MACHINERY.... SOME THAT CAN BE SOLD. *USED IN EVERY INDUSTRY!*

FIVE DOLLARS SAVED A YEAR FOR EACH DOLLAR INVESTED...

THE RESULT OF ***ERIEZ*** MAGNETIC HUMP SEPARATOR INSTALLATIONS AT A SOUTHERN TEXTILE PLANT...***WOODSIDE MILLS.*** AVERAGE NUMBER OF FIRES *BEFORE* ***ERIEZ*** HUMPS WERE IN....**12** PER YEAR! *AFTER INSTALLATION.....* NO FIRES...NO PRODUCTION DELAYS!



ERIEZ MANUFACTURING COMPANY
501 EAST 12TH STREET, ERIE, PA.

MY CONTAMINATION OR SEPARATION PROBLEM IS:

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_____

PLEASE SEND LITERATURE ☐

HAVE REPRESENTATIVE CALL ☐ PROMPTLY ☐ WHEN IN AREA

NAME _____

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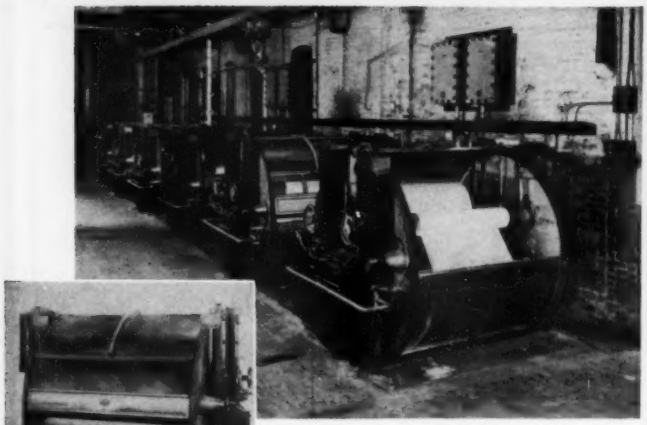
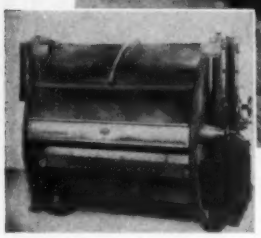
SI D

NOW – for Better, Faster Dyeing of Synthetics with GLASCO DYE JIG ENCLOSURE





Enclosure in closed position

This enclosure now makes it possible to maintain controlled mean temperature throughout dyeing time of Nylons, Acetates and other Synthetics.

As a consequence, dyeing time is shortened. Uniform stripping is assured in redyeing or changing the color of a fabric. Chrome blues and other difficult colors can be jig-dyed. Colors are well dispersed, and level dyeing without shifting is possible. In soaping, temperature is prevented from rising too high and so causing a dull finish. Steam and water are saved.

Other advantages:

New design of hood saves space—no overhead obstructions, roller doors on bearings swing down and under jig when open — minimizes dripping — prevents steam blast toward operator when hood is opened—no cables, chains, counterweight posts to obstruct. Jig enclosure can be fitted to any jig—note big windows for easy observation of interior when jig is closed.

Manufacturers of modern metal equipment for wet processing uses, including Dye Jig Enclosures, Dye Tubs and Becks, Wash Tubs, etc. of stainless steel and other metals that resist corrosion under most alkali and acid conditions.

GLASCO EQUIPMENT CORP.

Pioneer Fabricators of Stainless Steel Equipment

10 WAIT STREET **PATERSON, N. J.**

Representatives:

Massachusetts
Charles L. Niles Company, Boston

North Carolina
Odell Mill Supply, Greensboro

South Carolina
Greenville Textile Supply Co., Greenville

not used on the previous set of warps. It will be up to the fixer or superintendent to determine when the needle bar should be re-needled.

In having the bar re-needled, which type of needle should be used, the leaded or butted needle? The butted needle is more economical than the leaded needle, but is awkward to insert at first. Every knitter should be required to straighten needles and be responsible for keeping them straight in the needle bar. If this is done, the butted needle should replace the leaded needle.

If the knitter is given the proper instructions on needle straightening, he should have no trouble in keeping the needles straight. After this type of needle is placed in the bar and if it requires additional pliering, it should be removed from the bar and straightened by hand or in a fixture.

It is practically impossible to do any straightening after the needle is placed in the bar. This type of needle has proved itself in the full-fashioned field where every knitter is required to be an expert needle man.

The instructions given by the machine builder must be followed for placing the needle bar back in the machine in its proper position.

The thrust bearings on the needle-bar shaft should be checked for excess play and, if necessary, adjusted. All needle-bar cam rollers and cams should be checked for excessive wear and reset. In all of this type of work, check alignments with a dial indicator.

Sinker-Motion Reconditioning

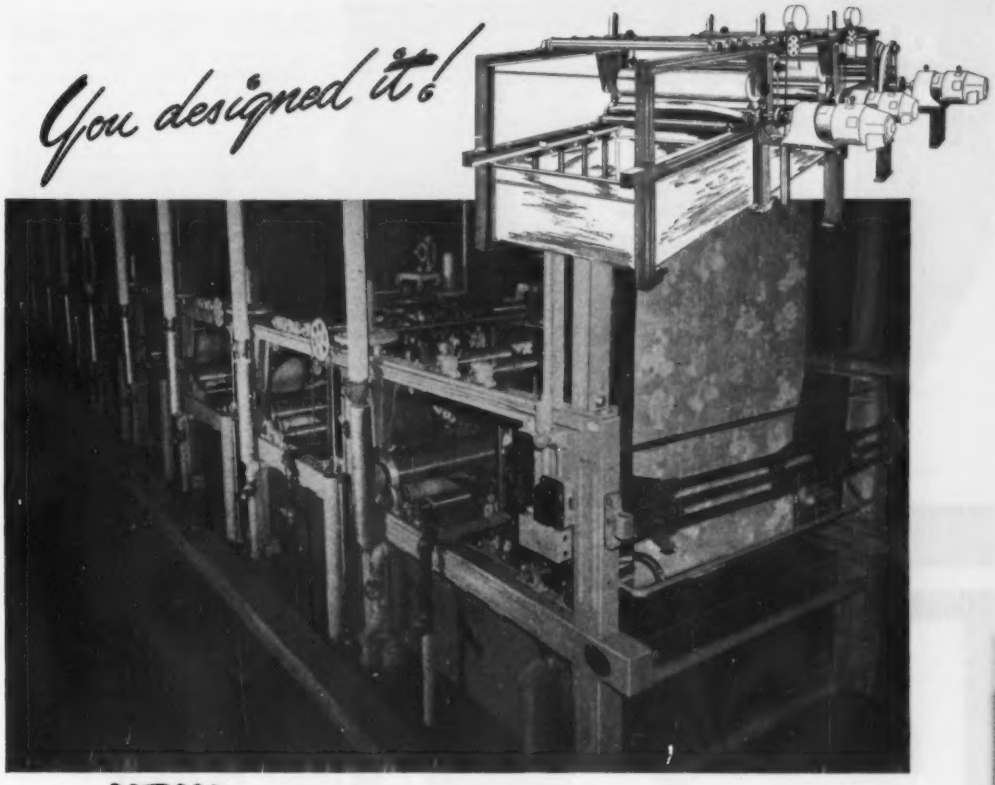
Remove all of the sinkers from the sinker bar, and inspect each sinker for bent sinker blades or sinker noses and loose leaded sections. After they have been inspected, the sinkers should be soaked in a Stoddard-solvent and light-oil solution to remove all foreign matter. A solution of 100% Stoddard solvent could be used if it is removed immediately and needle oil applied. Dirt and the solvent-oil solution can be removed by an air hose.

After the needle bar has been installed properly, replace the sinkers on the sinker bar. If several new units of sinkers are required, they should be replaced on each end of the bar. In replacing the sinkers, the needle man should work from the center outward in both directions. Upon completion of this work, a dial indicator again should be used for checking alignment of these parts. The sinker rollers should be inspected and reset.

Presser-Motion Reconditioning

Watch for small grooves which appear in the presser bar operating un-

You designed it!



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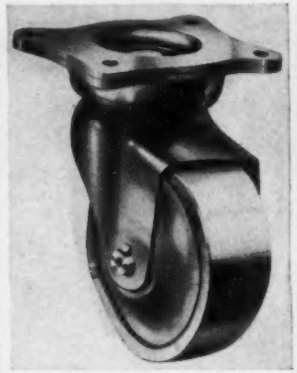

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der normal conditions. As soon as these grooves appear, the bar should be removed and re-milled or reground. Before placing this bar on the milling machine, check with a micrometer every section of the bar to see how much it varies. You can readily see that any variation would change the depth of cut. In addition, the bar should be thoroughly cleaned and all rough edges removed.

After the milling operation has been completed, a fine piece of emery cloth can be used to break the edges; or if the milling- or grinding-machine setting is fine enough, a very light cut can be taken to bevel the edges of the bar. This job requires extreme accuracy and should work to within ½/1000-in. variation.

After the bar has been placed back on the tricot machine, it will require resetting, the same as all of the other bars.

Guide-Rocker Reconditioning

The guide-rocker motion will require close inspection for parts that show wear. Every guide-bar bracket assembly, if necessary, should be removed and rebuilt or replaced. Operating at high speed, these parts must be kept free of play—especially the front guide bar.

The plunger-connecting link assemblies and the guide-bar lifting mechanism very often require the replacement of bushings. This work will reduce the noise in the machine caused by vibration.

The guides should be removed from the bar and cleaned the same as the sinkers. If the guides have a small groove cut by the yarn, or are loose in the leaded section, all of them should be replaced.

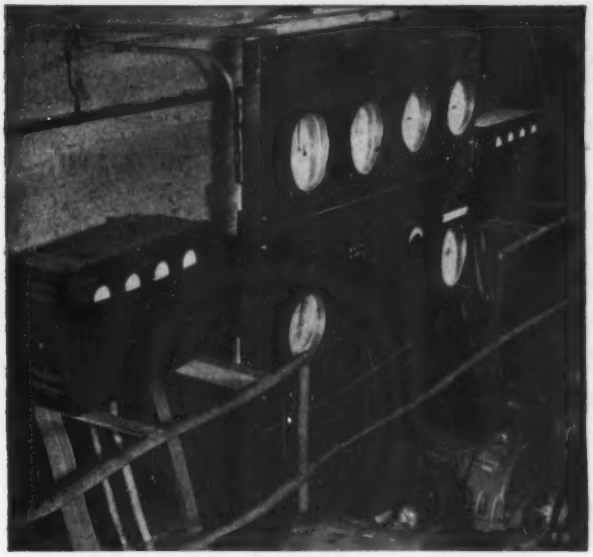
Pattern-Cam Reconditioning

A thorough inspection should be made of all pattern cams to see if it is necessary to have them refinished. A milling or grinding machine can be set up in the machine shop for this work. Extreme accuracy must be maintained on any project of this type undertaken by a mill.

The pattern-cam oil pan should be removed and cleaned, and the oil should be replaced as recommended by the machine builder.

Warp-Control Reconditioning

If the tension bars show wear, they should be turned to another position. In addition, all yarn-guide rods must be polished and cleaned. The tension springs should be checked thoroughly to see that they have the same compressibility. The excess grease on these springs should be removed so that the grease does not get on the



CONSTANT CONTROL OF WARP YARNS. These Bristol instruments automatically control temperature, liquid level and pH on the sheet of warp yarns running through the dye-slasher of Unistel-Batchelder range at Empire Cotton Division, Woods Mfg. Co., Welland, Ontario.

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Humidity recorders for carding, combing, drawing, spinning, weaving.
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Liquid level recorders and controllers for water tanks and wash wheels.

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yarn while you are threading the machine.

There is a definite need for a warp-feeding device on the tricot machine. The yarn should have an accurate measuring device so that the manufacturer will know exactly how much yarn is used for a piece of cloth. This attachment, when available, should be installed on every tricot machine.

Fabric Take-Up Reconditioning

If the machine does not have a constant cloth take-up, it may be well to consider obtaining this type of an attachment. More uniformity can be obtained with a uniform take-up rather than an intermittent take-up. A system should be worked out whereby the cloth roll can be removed from the machine without stopping the knitting operation. Such a system will eliminate one stop mark per piece of cloth and loss of production when the machine is stopped to doff the cloth. This can be done very easily with an additional take-off roller on some types of machines; on others, two additional rollers may be required.

400-Needle Machines

(*Continued from page 99*)

At this point, the shoe on the switch-cam operating lever should be on the first step of the drum cam and against the rise to the top of the cam. Any adjustment to advance or retard the drum can be made at the adjustable timing gear.

7. Good Clutching Important

Proper clutching is important to smooth machine operation. The clutch should be checked to see that it goes freely from one pinion to the other without binding or hanging. If the movement is too fast or too slow, it can be corrected by retarding or advancing the drum. If the throw is too great, correction may be made at the eccentric-cam follower stud.

8. Adjust Sinker Leads

The sinker lead should be checked periodically to insure good knitting. Usually it is sufficient to check a single sinker lead. This lead may be checked with the machine in the heel. Turn the machine until the hook of the first active needle is level with the top of the inside sinker ring. Then the bumper screw should be set so that the sinker in front of this needle is all the way in. The same adjustment should also be made for the other side. Any adjustment of the sinkers usually alters the quality of the fabric, and it makes some regulation of the quality screws necessary.

The sinker cams are usually set at

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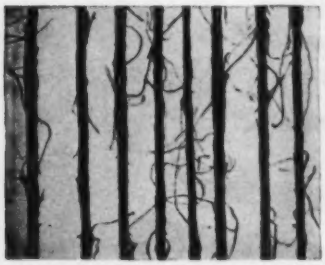
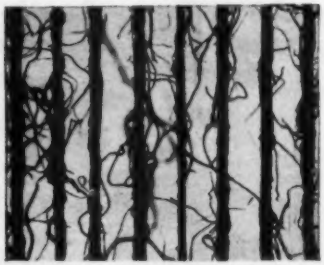


Longitudinal view of 40s yarn coated with homogenized size. Notice the exceptional degree of fibre lay.



Longitudinal view of 40s yarn with boiled size. Note the irregular degree of fibre lay.

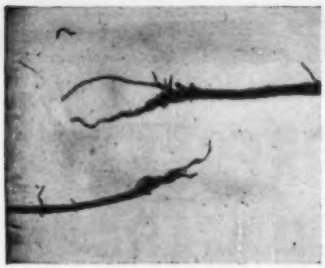
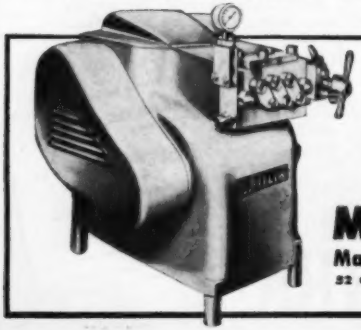


Photo micrograph shows break of homogenized single 60s yarn. Note the uniform fibres.

Break of 60s yarn coated with boiled size. Notice the irregular break throughout.

The illustrations above prove that Gaulin Size Homogenizers improve size quality. This assures better, more uniform size penetration into yarn which results in a stronger yarn. Homogenized size increase loom production, reduces rejects. Remember, too, Gaulin Homogenizers reduce cooking time, thus stepping up production and reducing costs.



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0.120 in. by a gage. However, when running 15-den. nylon, it is better to bring this setting in to 0.110 in.

9. Check Cylinder Spline

The cylinder spline may be checked by locking the sleeve gear with a screw driver inserted between the bevel gear and sleeve gear. Then by working the cylinder with the hand, any lost motion will usually be detected. This lost motion may be eliminated by putting in a new spline.

If it becomes necessary to tear the machine down to put in a new spline or for some other reason, the fixer should thoroughly clean and check the parts removed for wear. The parts may be placed in a cleaning solvent as they are removed to loosen oxidized oil and dirt.

As the machine is reassembled, each part should be thoroughly cleaned. It should be checked for any worn or broken places, and any necessary repairs should be made. Then, the parts should be refitted to the machine and adjusted to their original positions.

Departure from this procedure may, on the surface, seem to save time and keep up production. However, a careful reassembly job will, in the long run, pay off in less trouble and fewer breakdowns.

F-F Machine Maintenance

(*Continued from* page 102)

box. Machine builders have iron-clad rules for erectors to use standard gages in the erection of the machines; and fixers, too, should use the right gage on the machine to make adjustments. On welt-turner machines, especially 60-gage equipment, the points of flexibility have been decreased; and making adjustments on the machines without gages only causes future troubles.

If a fixer with a limited amount of experience is called to a machine to make an adjustment to remedy a certain trouble, the problem should be thoroughly viewed and studied before any gaging is done. In most cases, after the trouble has been thoroughly analyzed, the correction of such trouble becomes rather simple. Do not get in the habit of just moving this or that part to remedy trouble, because false adjustments on various parts usually result in added trouble.

2. Clean and Oil Properly

For maximum production, machines must be well cleaned and oiled. Sizing constantly must be kept from building up in the knock-over bars if you are to get a clean, well-developed loop formation. There are sev-

new developments in high temperature dyeing

Noteworthy results from research and development work in high temperature dyeing are bringing about many changes in mill practices.

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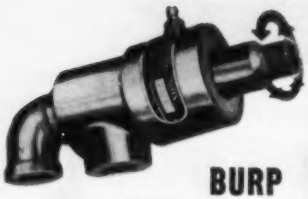

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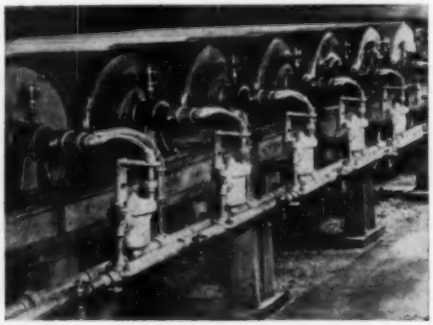

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eral methods of removing sizing from various parts on the machine, and each case can be worked out in the individual plant itself.

A well-oiled machine is necessary if you are to get maximum production. Sticky bearings, caused by negligence of the knitter in oiling them, cause loss of production and in many cases poor loop formation.

3. Check for Stitch Distortion

In knitting 15-den. or any other small yarn, one of the main jobs for the fixer is to check for causes of stitch distortion in the fabric. Here are a few suggestions to use in fixing a machine that is making stockings that have stitch distortions or fish eyes.

See if needle bars are at the proper height. Use a needle-bar height gage, and set all needle bars so that they are uniform.

Check knocking-over bits. They must be set with the knock-over bit gage to get a snug fit between the knock-over bits and the sinkers and dividers. On the welt-turned 51- and 60-gage Reading machines, the gage to be used is 0.085 in. On the 51- and 60-gage Kalio machines, it is 0.040 in. Remember that on both machines, the gaging is done when the rollers are free from their cams.

Check for excess catch-bar and press setting. When there is too much press, and the catch bar is on too hard, stitch distortion results. This condition occurs when the stitches leave the sinker noses and are not knocking off properly when they first enter the knock-over bits.

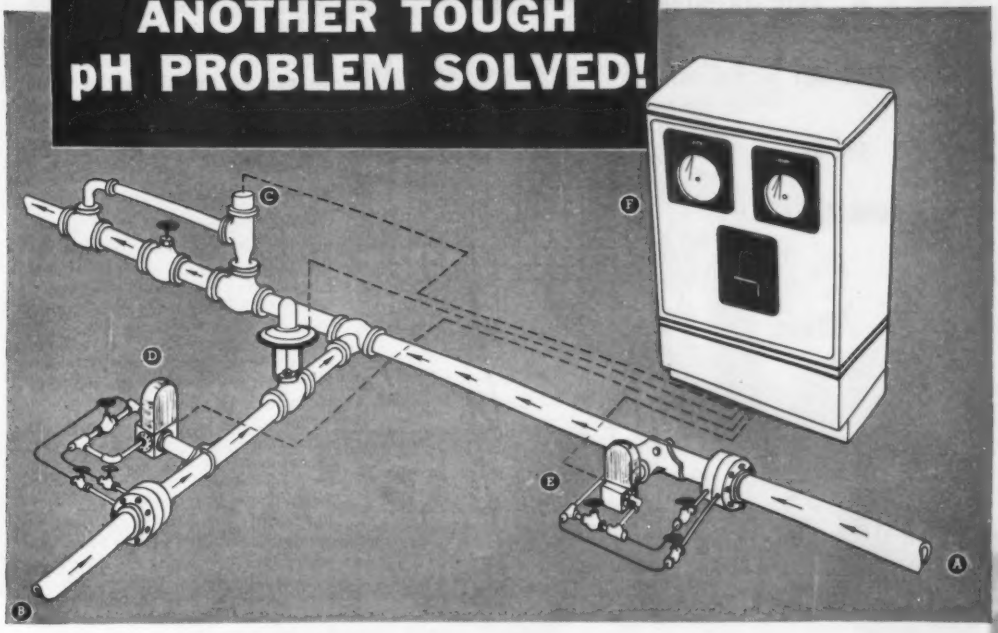
Always use a table gage to determine the right point for setting the catch-bar horizontal motion. The function of the catch-bar is two-fold: (1) to move all the dividers forward simultaneously after the sinkers have been advanced, and (2) to control the movements of both sinkers and dividers from that point to the completion of a course of loops. The horizontal movement is controlled by the back catch-bar cams.

The vertical motion of the catch-bar engages and disengages the sinkers with the catch-bar slot. The correct height between the sinker butts and the bar in normal position is 0.032 in.

4. Set Coulier Motion Correctly

The fixer must be thoroughly familiar with the coulier motion. This motion is one of the most important motions on a full-fashioned machine. The coulier motion provides a means for transforming rotary motion into reciprocating movement. It controls the movements of the carrier rods through friction boxes and of the jack

ANOTHER TOUGH pH PROBLEM SOLVED!



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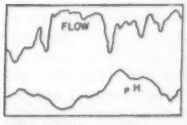
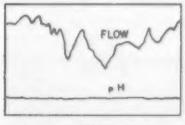


THE PROBLEM: To control the pH of fluid (A), a corrosive material varying both in volume and concentration. Flow and unadjusted pH of (A) are shown in curves (left). Since there is no capacity in the system, the high rate of change of flow makes simple pH control inadequate. Adjusting chemical (B) is in a head tank and has constant concentration.



THE SOLUTION: Flow ratio control is employed to maintain the flow of (B) in precise relation to the varying flow of (A). The ratio itself is continuously adjusted by a pH controller. Flow measurements are transmitted to the ratio controller by stainless steel differential pressure cells (D) and (E), while pH is measured at a point (C) where the reaction is complete.

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product

through the slur cam. Upon its correct action depends the successful operation of the knitting heads.

There are two important settings of the coulier motion. One is the placing of the draw rollers in relation to the cam, and the other is the timing of the clutch in relation to the slur bar and catch bar. Care must be taken in leveling the pitman if the coulier motion is to be properly set.

5. Make Good Selvages

Since seaming is the main bottleneck in the flow of hosiery through the plant, it is of the utmost importance that the fixers see that good selvages are being made on all stockings. It is important to get clean, tight selvages; because bad selvages result in an unsightly thick seam. Here are a few causes of and remedies for bad selvage formation.

The coulier motion is often an indirect cause of bad selvages. If the coulier-motion draw is not centered in the knitting head, the selvage on the inside of the heel reinforcing is likely to be tight. The brake band should be cleaned and all excessive grease removed; because during the narrowing motion, the brake band should be tight enough to stop the coulier motion for one complete revolution of the cam shaft. The brake band also must be tight enough to hold the bevel gear stationary during the narrowing operation.

Friction boxes are often the cause of bad selvages. A loose friction will cause loss of carrier lead in couliering, and affect the shock-absorber action. Also, it will cause rebound and broken needles. Friction boxes that are too tight will cause needle breakage, and excessive wear on the coulier gear.

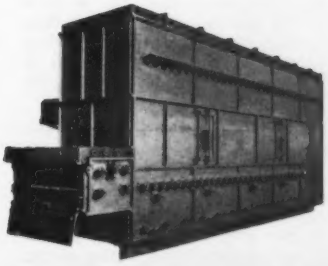
Proper yarn-tension control and needle-bar setting are also important in securing good selvages. If needles are out of alignment, tight or loose selvages will result. The needle-press setting must be correct.

6. Watch Needle Replacement

All superintendents should keep an accurate check on the percentage of needles that the machines are using. Needle consumption can be very costly if it is not watched carefully. With the increased speed and automatic features of the new machines, the problem of maintenance, particularly of needles, becomes most important.

Knitters must be constantly checked to see if they are doing a good job on keeping their needles in first-class shape. They should be trained to do a good job of straightening needles on the machines. The motion of the needles on flat-knitting or full-fashion

Best Suited for Textile Use



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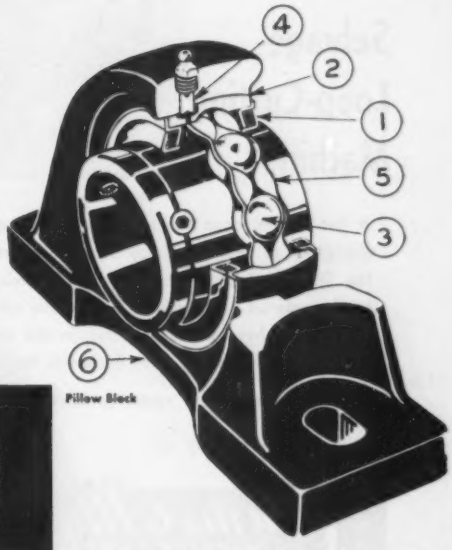

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BALL BEARING UNITS

SEALMASTERS Satisfy Every Need of the Modern Mill—for 6 Important Reasons:

1. PERMANENTLY SEALED!
Felt-lined steel flinger rotating in labyrinth prevents entry of dirt and fly. Retains proper amount of lubricant. Can't leak to damage goods.

2. SELF-ALIGNING!
Bearing unit, with seals independent of housing, can align itself in any direction without seal distortion.

3. PRE-LUBRICATED!
Bearing chamber is filled with proper amount of lubricant before shipment from SealMaster factory.

4. NO HOUSING WEAR!
Patented locking pin and dimple prevent rotation of outer race in housing. This eliminates housing wear and permits shaft alignment and positions unit for relubrication when needed.

5. FLOATING RETAINER!
Ball retainer is designed to float on ground inner surface of outer race. Traps lubricant, prevents churning.

6. HOUSING DESIGN!
SealMaster's cast housings combine rigid, one-piece construction with smooth streamlined appearance.

The exclusive combination of important features found only in SEALMASTER Ball Bearing Units make the ideal choice for use on textile machinery. Many manufacturers and users have standardized on SEALMASTERS to insure long-life, trouble-free bearing performance on their equipment.

In many cases, SEALMASTER housings have been specially designed to meet specific requirements of textile machinery. SEALMASTERS provide smoother machine operation, minimum maintenance, reduced power consumption and general all-around superior performance. Write for SEALMASTER catalog for full details.

Cartridge Unit

Flange Unit

Flange-Cartridge Unit

See for yourself why SEALMASTERS excel. The SEALMASTER engineer will gladly tell you the full story...and show you this cutaway unit. If you have a special bearing problem, invite the SEALMASTER engineer to suggest an answer.

Write for copy of CATALOG 845... it gives dimensions, load ratings and engineering data on the complete SEALMASTER line.

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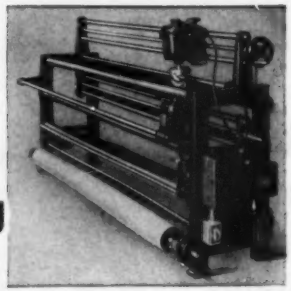
STEPHEN S-A ADAMSON MFG. CO.

10 RIDGEWAY AVENUE, AURORA, ILLINOIS — LOS ANGELES, CALIF. ★ BELLEVILLE, ONT.

Factory Representatives and Dealers in All Principal Cities

Selvage-Loop-Cutting Machine*



● For cutting open the loops along the selvage of the goods so that they may be readily removed by the Type CMR Shear. Employs two revolving cutter heads mounted just above and below the selvage. By means of a hand wheel both cutters are simultaneously moved in and out when the goods vary in width.

Automatic seam protection.

*Patented

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MACHINE COMPANY
WORCESTER, MASSACHUSETTS

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Since 1897, we have been making Travelers of the highest quality.
Using the best wire obtainable, we have specialized to bring to us near perfection as possible the little Ring Traveler.
We are proud of the results, and believe you would be too. Specify STERLING and see for yourself.

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STERLING RING TRAVELER CO.
FALL RIVER, MASS.

machines requires both vertical and horizontal movements: vertical to draw the newly formed loops through the old ones, and horizontal to press the beards of the needles into the grooves. This movement forms a closed eyes so that the old loops can slip from the needles. Then it carries the new loops back to the old ones, so that the needles will clear the old loops when they rise to their starting positions. The dividers then equalize the loops when the dividing action takes place. This motion is sometimes referred to as "a figure-eight" movement.

Top Making

(Continued from page 105)

mended because they eliminate a large number of burrs and make further processing easier. The setting of the Morell must be done with care, and the burr knife must work precisely so that the burrs are cut off and wool fibers not drawn out. The fewer burrs in the noils, the higher the prices that can be obtained for them.

The production of a 60-in. fillet card is approximately 50 lb. on 60s average wool. The production of the metallic card is about 60 or 65 lb. or better on the same stock.

A small percentage of oil, usually about ½ of 1%, is added before carding; but in some mills no additional oil is applied and the residual grease of ¾ to 1% considered sufficient. Moisture content of the wool should be around 20%. Recommended relative humidity is 70%, temperatures should be around 80° F.

PRECOMBING GILLING—
Small Drafts and High Doublings

The card delivers an open web, but the fibers are not parallel as yet. The object of the gilling is to lay the fibers parallel because the comb will eliminate fibers which are not straight and will make that the amount of noils is unnecessarily increased.

Gilling for precombing and postcombing is mostly done on intersecting-type gills. One to three gillings before combing are usual, depending upon the quality of the wool. One to two gillings are required for coarse and medium wools. Fine wools should have two, and preferably three, gillings.

In order to make the sliver for combing regular, small drafts and a high number of doublings are usual.

In the first operation after carding, drafts of four; in the second operation drafts of 4 to 5; and in the third, drafts up to 6 are usual. If special care is not taken, the sliver becomes choppy, especially on older types of

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Star is peroxide's "governor". When no cloth is present it stablizes the solution, and then in the bleaching range, it controls the oxygen release to permit even bleaching. The purity of Star avoids floc formation which may cause scale deposit and entrap iron or other impurities damaging to the goods.
Star's constant purity assures full value from your peroxide with more uniform bleaching. Little wonder more mills want Star. When you need silicate, see PQ.
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Colson Casters
Model 3-408-16 caster with thread guards, designed especially for the needs of the Textile Industry
Rolling stock that doesn't roll easily cuts efficiency and profits in your mill. Colson specializes in wheels and casters engineered for the Textile Industry. They roll easily over all floors, are rust-resistant—many models have thread guards. Colson also manufactures a wide range of trucks for the Textile Industry—hand trucks, platform trucks, box trucks, drum and barrel trucks and special devices. Write us or consult your phone book for the Colson representative near you.
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machines. Bad results in combing are then frequent.

The front rollers of the gills should be small in diameter—1¼-in. maximum—or possibly less so that the distance between the last faller and the nip of the front roll is as small as possible and even very short fibers get proper control.

The last gilling operation before combing is usually made on balls, as rectilinear combs usually have a ball creel. The other precombing gillings are made either into cans or on balls.

The processing weights, doublings, and drafts have to be carefully selected for various types and qualities of wools and will vary from mill to mill. The humidity preferred for gilling is 75% r.h.; the temperature should be around 75 to 80° F.

COMBING—
Proper Settings and Good Supervision

The rectilinear comb, a versatile combing machine which can successfully handle fibers from ¾ in. upwards to 8 in. and longer, is used in combing short wools.

As mentioned, wool is usually fed into the comb in balls. However, many combing plants use a can feed. However, the space needed for can delivery is about twice as large as the space for combs with ball creels.

The comb is built in two widths; normal width is about 13 in., and the wide width around 19 in. The normal-width comb is fed by 24 slivers, the wide one by 32 slivers, each weighing from 120 to 180 grains per yard, depending upon the quality of wool. Although a low feeding weight of 120 to 140 gr.p.y. is recommended for very short wools, in mills with new machinery satisfactory results and higher production are achieved with even heavier weight slivers—160 to 170 grains per yard. The recommended speed of the comb for short wools should not exceed 110 to 115 nips per min. The wide comb should not make more than 100 nips per min.

The following setting of the comb for short wool is recommended:

Gage: 19 to 20 mm.—about ¾ in.
Feed length: 6 mm.—about ¼ in.
Weight of sliver: about 130 to 140 gr.p.y.

The production depends upon the speed of the comb, the feed length, the total feed weight, and the noilage. The accompanying panel shows some useful calculations for the rectilinear comb, its production, the border length of fibers for tops and noils, the purity of tops, and the approximate noilage.

Usually the production of tops of

APRIL • 1951

CARD CLOTHING NEWS and views

WRITTEN MONTHLY BY E. A. SNAPE, JR., PRESIDENT, **Benjamin Booth Company** PHILA., PA.

STRIP-O-MATIC

Provides A SURE WAY

To CARD BETTER — At Savings In TIME and MAN HOURS

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ONLY ONE
STRIP-O-MATIC
Card Clothing

You get the "one and only" when you specify STRIP-O-MATIC.

The name STRIP-O-MATIC is Registered as a Trademark and the product is Patented by the U. S. Patent Office.

You are thus assured that when we say STRIP-O-MATIC it is the genuine product, and you are further assured of getting it at all times when ordering by that name.

During the present State of Emergency we shall endeavor to fill orders as promptly as possible, for we know that, by supplying you with a product which will conserve and make your product better, we shall be doing our part.

The heat is on today to conserve wherever possible. STRIP-O-MATIC Card Clothing offers definite savings in time and man hours, with the further result: a saving in costs—which makes it a "must" in your production and conservation program.

STRIP-O-MATIC cuts stripping to a minimum. This automatically reduces "down time", makes it instead "production time", thus you are able to release the strip crew for other jobs, so that you save labor. And, because STRIP-O-MATIC cards better, resulting in less waste, you realize profits from better and greater production.

Pause an instant and think of all the card clothing on the market today. Nowhere outside of the revolutionary STRIP-O-MATIC can you obtain a card clothing which offers so many new features producing such savings.

For this reason, whatever card clothing you are now using, if it isn't STRIP-O-MATIC, you aren't realizing the profits you should.

The only way to know what STRIP-O-MATIC will do for you is to try it. How about it?

If you want full details on the design features, and why *STRIP-O-MATIC* offers you more than any other card clothing, write today.

More than 200 users of STRIP-O-MATIC have applauded the product . . . you be next.

Your inquiry will receive prompt reply.

Thanks.

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Series 20 of typical "H-W" CONDITIONER applications:

Sapphire hosiery corporation
installs a NEW "H-W" CONDITIONER
in their Telford, Pa. Mill

Here's another enthusiastic report of the operating advantages of the "H-W" Conditioner . . . from Sapphire Hosiery Corporation:

"The 'H-W' Conditioner, recently installed in our Telford, Pa. mill, has considerably improved our conditioning operation. The yield of perfects have increased 15 percent and better.

"Our operators and examiners report seaming and looping are done more easily, with greater production attained; no picks and pulls, and all with very little mending.

"We feel that the Conditioner has already paid for itself by operational savings and by proper conditioning of our stockings."

"H-W" CONDITIONER for Nylon Hosiery in Sapphire Hosiery Corporation Mill.

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TANKS TOWERS CYLINDERS VESSELS

short wools, 60s average, which have 15% or more noils, is about 15 to 16½ lb. per hr. on the normal-width comb, and 17½ to 19 on the wide comb, depending upon the quality of wool, the feed weights and feed length, and the noilage. Although in some cases, for various reasons, production is lower, in mills with proper machinery and perfect control, higher production figures can be achieved with satisfactory qualities of tops.

The narrow comb is preferred for short wools because of the heavy strain on the half laps when wools with a very high percentage of noils are being processed. The wide comb, although about 30% wider, has only a 15 to 20% higher production because it usually operates more slowly and lower sliver weights are fed.

The proper setting of the comb in processing short wools is of great importance. The comb must also be kept clean. The pins of the top comb and the half laps should be in good condition, even in length, and needle bars with missing pins should be repaired immediately or replaced. The half laps must be repinned when not in satisfactory shape. The pinning of the finisher segment must correspond to the quality of wool combed. It has to be changed when a new lot of wool with greater difference in quality is being started. The burr knife should operate properly, to insure a clean top.

Usually up to eight combs can be supervised by an operator, and modern plants build their combing department with machines arranged so that one person can operate four combs facing the other four. Modern mills also use pneumatic removal of noils and waste to improve the efficiency. Combing must be constantly supervised; samples should be taken often, noils weighed, and neps counted.

The oil percentage should not exceed 1%, temperatures should be around 75 to 80° F., the humidity not less than 68% r.h.

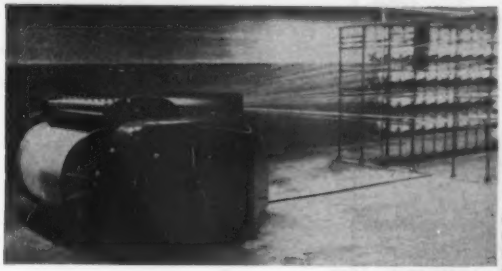
POSTCOMBING GILLING—Two in "Short-Cut" Systems

One or two postcombing gillings are necessary to produce a good and even top.

While, in some cases, one gilling is considered sufficient, in most cases two gillings are recommended, especially when the tops are used for the so-called "short-cut" spinning systems. As the number of doublings is low, the requirements for evenness are much greater, and short-term variations must be kept at a minimum.

Great care must be applied on finisher gilling to obtain a perfect top. Too high speeds on the balling heads

Especially Designed For Large Section Beams



Model SD-49

Electric Speed Indicator

Collecting Eyeboard on back of Machine

Positive Zig Zag Expansion on Front

Push Buttons controlled with Stations on both sides of Machine: convenient to operator—each station with Stop-Start and Jog buttons.

Speed up to 1000 yards per minute

Over-all dimensions 9'2" by 7'4" by 51½" high.

The New Cocker Spindle Driven Warper

This is the model which was displayed at the Atlantic City Exhibition. It will handle large section beams with 36" diameter heads 54½" between heads or wider, as well as beams with smaller diameter heads. Can be run with either horizontal or vertical creels. Weights approximately 9000 pounds. Heavy construction permits high speeds with minimum of vibration.

Warner Electric Magnetic Brakes: provide synchronized control over main drive shaft, presser roll, and cross over roll brakes.

Large Diameter Press Roll: adjustable pressure provided by heavy air cylinder.

Beam Driven and Braked from both Ends: eliminates undue strain on the beam.

Driving Heads: equipped with self-centering chucks, and driving dogs—both controlled by a single operation.

Beam Loading and Unloading: easily and quickly done by air cylinder which operates the pressure roll.

Standard Equipment on all Machines

Static Eliminating Bar & Tape-off Bar

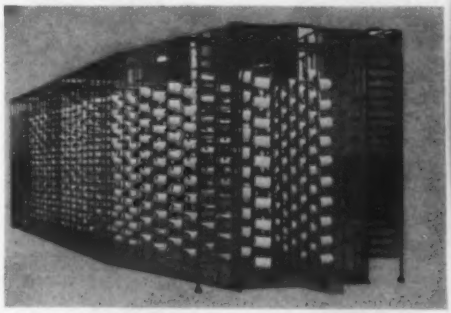
Electric Pre-determining Counter Clock

Vertical Type Cone Creel With Electrical Eyeboard Stop Motion

A portion of this patented creel is shown with the Warper above. Can be built three, four, five, or six packages high to suit building. This creel has many exclusive features which improve tying in of reserve cones, improve tension control, and provide positive braking action. Write for Folder SD-49 for full details on the equipment shown here.

Included on this equipment is the electronic relay stop motion, patented by Deering, Milliken Research Trust and manufactured by Cocker.

These machines can also be equipped with our Horizontal Type of Magazine Cone Creel, shown below.



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MILTON GIVES YOU TRUE DIMENSIONAL STABILITY without objectionable deflection or distortion!
it takes GOOD BEAMS to make good warps!
PROVEN IN SERVICE
warping unprecedented yardages of monofilament; fine denier, low turn nylon; and rubber yarns
WITHSTAND EXCESSIVE PRESSURES
MILTON NYLON & RUBBER TRICOT BEAM
Forged, heat-treated aluminum alloy heads and barrels permanently joined with continuous heliarc welds.
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Hair-operated and calibrated to professional standards of accuracy by the maker of the world's finest weather instruments. Handsome, modern case—4" high, 5½" wide, 1¾" deep.
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Accurate readings obtainable without special skill. Psychrometric readings can be taken at any point desired however inaccessible.
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3" x 5" charts, 10 or 30 hour records. Modern design...handy for small space and difficult locations . . . built to meet unusual conditions.
Model 594 Hygrothermograph
The foremost relative humidity recorder for laboratory, factory, and office use. Scientifically designed for accuracy and dependability.
Model 573 Motor Aspirated Psychrometer
Designed to determine wet and dry bulb temperature with laboratory accuracy—Motors supplied for use on 115 V., 50 cycles or 60 cycles.
Model S/1 Pocket Sling Psychrometer
A small, low cost instrument. Thermometers graduated in 1° increments from +35° F to +110° F. Furnished complete with case and psychometric slide rule.
Model 550 Sling Psychrometer
Manufactured to U. S. Weather bureau specifications. Thermometers graduated in 1° increments from −20° F to +120° F. or −35° C to +49° C.
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of the finisher are one cause of irregularities. Another one is eccentricity in front rollers which causes changing nips and short-term unevenness.

Before tops leave the combing department, they should be thoroughly examined. The scientific approach of top testing is gaining in importance, because spinners are insisting upon more uniform qualities of tops.

Strict supervision and good care are the prime requirements in producing good and even tops from short wools.

Cotton Research

(Continued from page 109)

determined when sample variance causes low readings.

TRI puts Pressley jaws on an Instron tester and determines from the curve when sample variation has caused a low reading.

Dr. Wakeham pointed out that much of the variance in yarns and at other stages of processing is caused by inherent variation within the fibers themselves, rather than by the processing.

Overdrying Damages Fibers

In his talk, Kyle Ward, head, Cotton Fiber Div., SRRL, New Orleans, La., pointed out that over-dried fibers are damaged in the mill often because the cotton is processed with less moisture in it than is normal. He stated that a 3 or 4% increase in relative humidity over that normally used will allow over-dried cottons to obtain about the same regain as normal cottons. In a discussion that followed Mr. Ward's talk, it was stated that drying fibers too quickly permanently damages them.

MEASUREMENT OF COTTON-FIBER PROPERTIES

Maturity and Fineness Measured With Arealometer

The principles upon which the Arealometer operates were described by Kenneth Hertel, head Fiber Laboratory, University of Tennessee, Knoxville, Tenn. The Arealometer measures fiber fineness by measuring the specific area of a known volume of cotton. The method depends upon compressing a known volume (weight of known density) of cotton in a cylinder until it offers resistance to the flow of air equal to that of a standard capillary resistance. The length of the compressed sample is then a measure

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A Powerful Condensed Fatty Acid Amide Detergent

In the dyebath, Oratol L-48 has superior action, good foaming and excellent penetration. It assures level dyeings on all fibres and fabrics. May be used in the same bath with permanent antifume agents.

Oratol L-48 is a highly active scouring agent for the proper preparation of goods for dyeing. It is excellent for washing both print goods and permanent resin treated fabrics. Oratol L-48 removes thickeners and decomposition products completely, giving bright, clear shades.

Oratol L-48 has efficiency in low concentrations in either hard or soft water thus saving time and labor. Why not write today for complete details and samples for a test run. We feel sure you will find that versatile Oratol L-48 has real action in a wide range of textile operations.

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Ordinary lubricants cannot endure the centrifugal throwing action of loom cams which spatter oil on warps and woven goods. Highly adhesive NON-FLUID OIL stays where applied to prevent these oil spots and smears. 7 out of 10 mills put a stop to "seconds" and save money on lubricant and application costs by using NON-FLUID OIL which outlasts oil 3 to 5 times.

We are prepared to furnish mills with skilled engineering service. Write for Bulletin T20TW and free testing sample of NON-FLUID OIL.

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DON'T YOU BELIEVE IT! If anyone approaches you with products they swear to be exact imitations of NON-FLUID OIL, at a lower price, don't you believe it! The basic factors in all industrial production preclude paying a little and getting a lot . . . Remember, you only get what you pay for!

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

of its specific area for fineness. This measurement is made under normal compression. The increase of the apparent specific area at high compression becomes a measure of immaturity.

The Arealometer is manufactured by Special Instruments Laboratory, Knoxville, Tenn. The machine was developed by Dr. Hertel at the University of Tennessee.

Fineness Affects Yarn Properties

A practical study of the relationship of fiber fineness to yarn properties was discussed by Louis A. Fiori, Cotton Mechanical Processing Div., SRRL, New Orleans, La. This study, made under controlled conditions, revealed that the effect of twist on yarn strength is influenced by the fineness of the fibers. On the low end of twist (less than that required for maximum strength), fine fibers give greater yarn strength and are not so sensitive to change as coarse fibers. On the high end of twist, fine fibers are more sensitive to change than coarse fibers. It was also noted that yarns made of fine fibers are stronger than yarns of coarse fibers.

In order to rule out all factors other than fineness, the tests were conducted on four varieties of cotton that had all factors equal except staple length and fineness. The effect of the staple length was eliminated, as the longer staple varieties were cut to give a fiber array approximately equal to the shortest variety being tested.

Among the other important results, the finer fibers were found to require less twist in the roving than the coarser fibers. From the coarsest fiber (5.6 micrograms per in.) to the finest fiber (2.9 micrograms per in.), the difference in roving twist amounted to about ½ turn per in.

The tests also indicated that fineness does not effect elongation. Further tests are being conducted in this study, and so Mr. Fiori's talk was only a preliminary report on the results.

Fiber-Strength Tests Studied

In a report on tests to evaluate methods of fiber-strength testing, J. K. Phillips, Goodyear Tire and Rubber Co., Akron, Ohio, raised a question as to the validity of the standard Pressley test. Mr. Phillips has been conducting tests to try to determine an accurate means of predicting yarn and cord strength from fiber strength. In his tests, Mr. Phillips found that a fiber which gave a good strength in the Pressley test did not always give good strength in cord.

For example, the fiber laboratory

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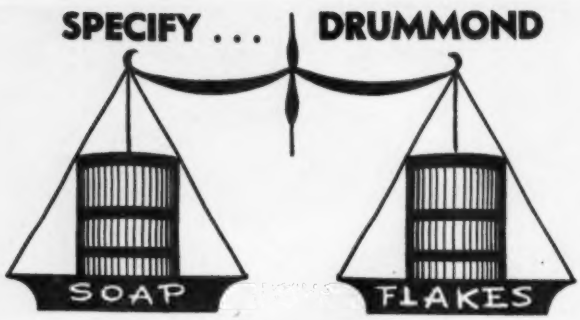

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may report 80,000-lb. psi. for a shipment intended for tire cord. Some time later the cord laboratory may report a value closer to 40,000-lb. psi. for the cords. Cases such as this one led Mr. Phillips to experiment with the use of greater-than-zero gage lengths for testing the fiber strength. He found that he gets a better evaluation of the fiber strength when he uses a Scott IP-4 tester at normal operating speed using Pressley fiber jaws. In fact, fiber strength when determined in this manner closely approximates the classer's rating of the fiber strength.

For example, six varieties of cottons were evaluated for strength at zero-gage length and at 5-mm. gage length. Varieties were listed according to strength, numerically from one to six, with number one being the highest of the group and number six the lowest strength. The zero- and 5-mm. gage lengths agreed in strength rating on the varieties which were rated 1, 2, 4, and 6. The variety rated as 3 at zero gage was 5 at 5-mm. gage, and vice versa.

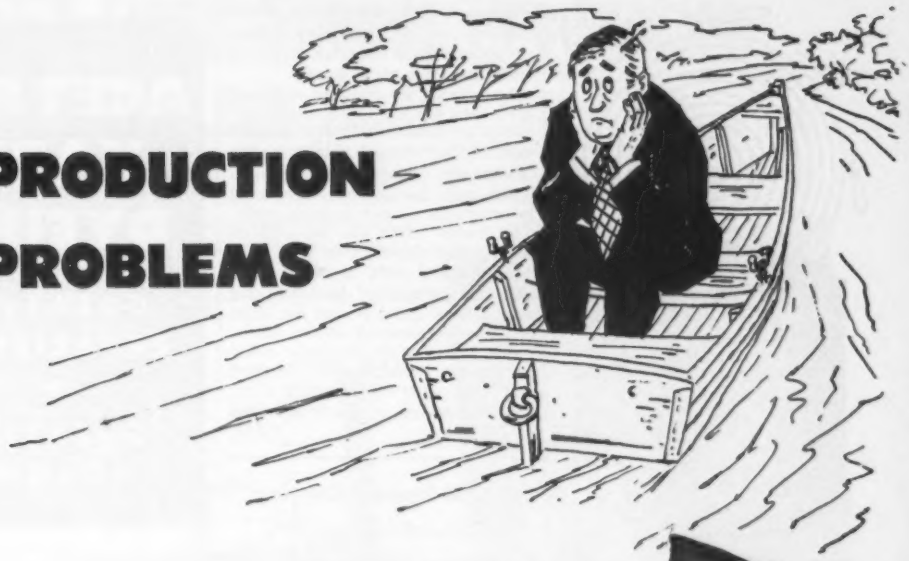
Other tests showed that the classer's rating was in complete agreement with the 5-mm. gage rating, and that both of these ratings were in line with the relative strengths in the cords.

Mr. Phillips concluded his talk by saying, "The Pressley tester should not be condemned entirely. Its unique design and simplicity of operation can still be retained to great advantage. I feel that this machine can be modified to test cotton-fiber strength at a rate of loading comparable to that used for subsequent end products, and to accommodate greater than zero-gage-length fiber bundles."

Chemical Modification of Cotton Described

The creation of what really amounts to new textile fibers by chemical modification of cotton was described by J. David Reid, SRRL, New Orleans, La. In the chemical treatment being done at SRRL, the fibrous character and shape of cotton are retained, but the cellulose is changed chemically into what is a new and different composition of matter.

By chemical alteration of the cotton cellulose, cotton can be "tailor-made" for specific end uses. One of the examples of a chemically modified cotton is a rot-resistant cloth or sewing thread. A fabric with these qualities made of cotton is of high potential value for both civilian and military use. This modified cotton is made by treatment of cotton with acetic anhydride, a common and inexpensive chemical, which converts cellulose into



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a composition approximating cellulose monoacetate. This treatment changes the appearance of the fabric very little while making it rot-resistant.

Samples of this partially acetylated cloth were exposed under severe conditions at New Orleans and retained most of their strength after two years of exposure. Natural cotton cloth exposed under the same condition rotted to uselessness in two or three weeks. This treated fabric also has high resistance to degradation by heat.

In practical tests, as in press-pad covers in commercial laundries, the treated fabric lasted at least five times as long as untreated cotton fabric. Other examples of chemically modified cotton included such divergent results as water-repellent cotton on one hand and more absorbent cotton on the other.

Worsted-Hosiery Knitting

(*Continued from page 103*)

7. Carefully Examine the Knock-Over Bits

Little kinks in the lower edges of the knock-over bits may cause deflection of the needles and dropped stitches in the narrowings. It is usually best to knock-over a little harder on worsted knitting; because the yarn twists and stitches are slightly distorted while they pass from the ends of the sinkers, and they are free on their way to the knock-over bits. This distortion must be removed before the next course is formed, or it will appear in the finished fabric. The distortion seems to set in the subsequent dyeing and boarding process.

8. Felts and Snaps

Felt frictions must be clean, free from cuts, and carefully adjusted so they will not stretch the yarn but will keep it as straight as possible. Have the snaps in good alignment, free from roughness caused by corrosion or grooves, and set lightly; so that they take up the slack but do not pull the selvage stitches.

9. Check the Narrowing Racks and Bars

The racks should turn freely but with a minimum of backlash. The narrowing bars may require careful resetting; because often a knitter will adjust for a single head, when the whole bar should be moved a few thousandths of an inch to compensate for wear at the rack end.

10. Set Cone Holders Correctly

Cone holders should fit the support-

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The "Uster" at the left is just beginning to tie a previously prepared pattern. Operator at the right is beginning to prepare a second pattern.

Pattern at left is ready for weaving and the "Uster" is beginning to tie the second warp at the rate of 250 knots per minute.

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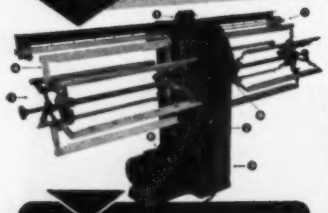

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ing wires and be set in the center of the yarn delivery. Worsted yarn, more than any other, has a tendency to cling to the yarn cone and cause surface tension. The cone must be mounted properly to give tension as uniform as possible.

If your yarn rack is glass-enclosed, the humidity should be high enough to keep the yarn emulsion from drying out of the cones. Good yarn conditioning is a must for uniform stitches in worsted knitting.

Outerwear Knitting

(*Continued from page 95*)

ers should be oiled once a week and kept clean of lint and yarn.

3. Stop Troubles Before They Start

Pattern wheels should be blown off and oiled at the end of each roll. Actually, the only part of a pattern wheel that needs oil is the bushing. Some mills literally pour oil on the wheels, but this procedure merely wastes a great deal of oil. All that is needed is a medicine dropper filled with light needle oil to squirt a drop or two on the bushing of each wheel. Pattern wheels can be cleaned readily by letting them soak in a pan of turpentine. After the turpentine has loosened the dirt, the wheels should be blown off and wiped dry with a clean rag.

A pattern wheel should be put on the section very carefully. If it is put too close to the cylinder, the walls may hit the cylinder and become damaged. Bent walls in a pattern wheel can cause needle butts to break, and this breakage can lead to a smash. You can usually tell when a pattern wheel is too close to the cylinder by the metallic click which you will hear when a wall or jack touches the cylinder.

A click also can be heard when a pattern wheel is put on too far away from the cylinder. In this position, the tuck jack cannot raise the needle high enough to pass over the wing cam. Instead, the butt of the needle is caught by the wing cam and pushes it away from the cylinder. When the needle has traveled past the wing cam, the wing cam then snaps back into position.

Strange noises in any part of a knitting machine should be investigated immediately. If suddenly a peculiar sound is heard coming from the base of a machine, it is wise to stop the machine, lift up the base, and find out what is causing the sound. The operator should be told to report any strange noises and also to report any

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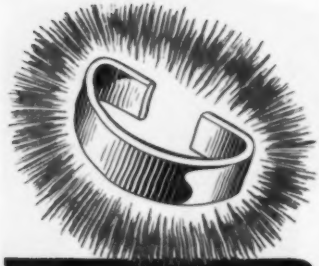

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machine which turns hard. A knitting machine should never be forced to revolve at any time; because that in itself shows that trouble is present.

Napping Quality

(*Continued from page 121*)

use to which it is to be put. It is not practical to nap numerous types of cloth, regardless of the number of napping runs. Certain finishes can be obtained only from particular types of cloth construction. For example, it is unreasonable to expect a suede or duvetyn nap on cloth that was made for interlining or something else.

Mr. Willis says that when only a scratch nap is required, such as on cloth used for suitings, shirting, dresses, etc., where a soft hand is the main requirement, the napping qualities of the construction are not so important. However, on work requiring any appreciable amount of nap, whether well-covered, long, short, thick, or any combination of these, it is of primary importance to make sure that the cloth has the proper construction.

The second important factor is the preparation of cloth so that it will be suitable for napping. Two general rules should be followed:

1. Cloth that has been dyed, or wet for any reason, should be desized before napping. If it is not desized, the warp size will set and cause an uneven nap.

2. Cloth that has been bleached should be treated with some softener material, such as wax or oil, before napping. The chemicals used in bleaching tend to harden the fibers to such an extent that they are brittle and consequently likely to break off unless some of the original softness of the staple is restored.

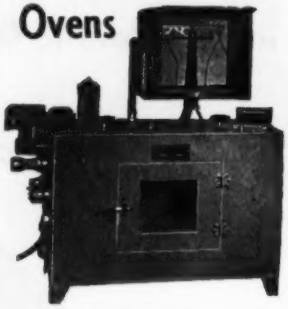
In some cases it is practical to obtain the desired nap and finish on cloth as it leaves the loom.

NAPPING WIRE. Next in importance in napping operations is the condition of the wire on the rolls. A great deal depends upon the way the wire is ground. Pacific Mills places emphasis on proper grinding to obtain maximum sharpness rather than uniformity in the length of the points.

The first grind is for face sharpness. The second is with an emery disk, the side of which is used for shaping the side of the wire and obtaining point sharpness of the wire. The main precaution is not to grind the wire to a heel. Best results are obtained when the wire has a long, sharp, tapered point. A short, stubby point wears off quickly and necessitates more runs of the cloth to obtain nap quality.

An objection of some grinders to

Textile Testing Ovens



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The Lewellen slasher drive operates in the following manner:

When ends are on beam and ready, the start button is operated. This starts power motor and runs slasher at its slowest speed. When ready for running speed, run button is operated. The controls then gradually increase slasher speed up to its running speed. At this point the control automatically engages contacts to moisture control, if used. During winding operation, the moisture control, through the Lewellen controls, automatically adjust slasher speed as required to maintain uniform moisture. When a beam is finished, operator engages the slow button. This instantly disengages the circuits to moisture control and gradually reduces slasher speed to its slowest speed. The stop button is then operated, de-energizing power motor and stopping slasher. When slasher is ready to again start, operator engages start button, starting power motor and running slasher at its slowest speed. When ready, run button is again engaged and slasher gradually accelerates to its running speed. No matter how much the moisture control may have adjusted the speed on winding the last beam, the controls always return slasher to its last running speed, and at this point automatically engages control circuits to the moisture control. Where moisture control is not used, the control returns slasher to its last running speed and engages circuits to push buttons and speed is thereafter adjusted by the push buttons as required.

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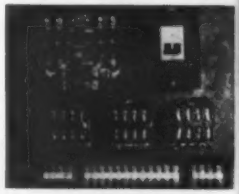
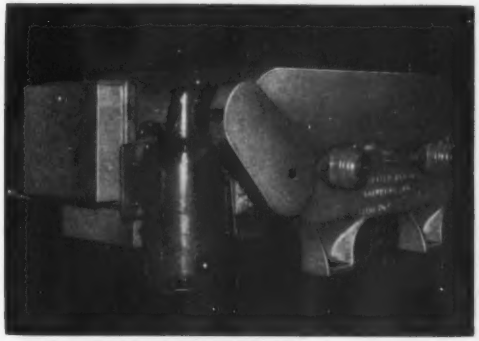


The Control Cabinet encloses power motor starter, all control relays and terminal plates. It may be located at any convenient point near slasher.



The Lewellen Transmission is completely enclosed with control motors, contactors, and all operating parts. Complete in one unit. Driven from present power motor. V-belt drives from power motor to transmission and from transmission variable shaft to slasher drive shaft.

Lewellen No. 12 class "F" Transmission with complete automatic slasher controls. Transmission is located under slasher and requires no additional floor space outside of slasher frame. Steel cover protects all interior parts. All parts lubricated while running, without removing cover.

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grinding the wire to a sharp, tapering point is that the pressure of the wheel on the clothing face tends to tighten the clothing on the roll and cause a tendency to buckle. This slack can be worked to the end of the roll and disposed of in one of two ways. First, it can be cut off and the screw replaced in the same hole in the roll; or, second, it can be left uncut and another screw hole drilled at the new location of the clothing end. In either case, a tight clothing will be obtained.

GRINDING FREQUENCY. The question of how often to sharpen wire depends on many factors. The general rule is to grind the wire when the desired results are not being obtained and adjustments do not correct the situation. If clothing is not allowed to get too dull and rough, rolls can be ground six to eight times.

Several precautions are taken at Pacific to maintain wire sharpness and to extend the time between grindings. Strippers are properly timed and set. The cloth is carefully inspected before it is run on the nappers. All bad seams are resewed; and all torn selvages, holes, and thin places are removed. On single-nap goods all seams are sewed away from the nap to lessen the chances of a break-out that would damage or roughen the wire.

Another important factor in quality napping is machine maintenance and adjustment. Worker rolls and all belting should be uniformly tight to eliminate variations in napping.

Machine operators agree that it is seldom that a napper does not develop individual characteristics that require special attention. Because of this fact, Pacific Mills adjusts each machine in accordance with the specific job it is to do. For example, if the process requires six runs to obtain the desired nap, six machines are assigned, each individually adjusted. This practice enables uniformity to be maintained on each run and a final nap to be obtained that is the same for all production. Quality control is assured.

NAPPING SPEEDS. Adjustment of roll speed to obtain the desired nap is given particular attention at Pacific. In general, a short nap that covers the surface of the cloth well is obtained by relatively slow rolls and several runs of the fabric through the napper. Roll energy is increased and the number of runs decreased as a longer, thicker nap is desired.

Since the weight of the cloth has considerable bearing on napping methods, care is exercised in making adjustments for all speeds. On light-

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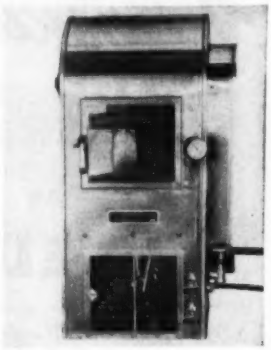

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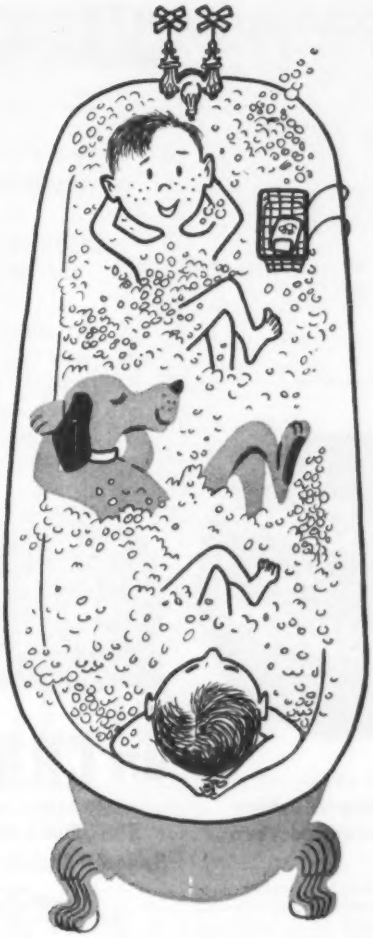

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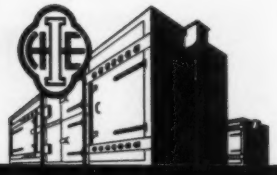

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CONVERSION UNITS
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Please write for detailed information about any of this equipment, or about special installations

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weight goods, the first run is to soften the cloth or break out the nap. The bite should not be enough to break the yarn or weaken the fiber; it should be just enough to start the process evenly. If too much energy is applied on any particular run, the chances are that the filling will be pulled or frayed.

For heavier cloth, worker rolls are run faster and carrier rolls slower. The slower the carrier rolls turn, the longer the nap.

Usually, the last run is made on a single-action napper to fill in thin places and give a smooth, uniform finish.

Questions AND Answers

Quill-Cleaning Machine Removes Untwisted Yarn

Technical Editor:

We are having trouble in cleaning empty quills from the looms. Our quill-cleaning machine does a good job on crepe yarn, but it doesn't clean our flat, untwisted yarns.

Cleaning the bunches off the quills by hand is a slow job, and we'd like some mechanical means for doing it.

Can you recommend a piece of equipment or a "kink" that would do the job? (9423)

Your first step should be to present your problem to the manufacturer of your quill-cleaning machine. Although quill bunches of untwisted yarn are harder to clean than bunches of twisted yarn, the machines usually can be adjusted so that they do a fair job of cleaning. It may be necessary to use a different quill-feeding mechanism.

You will not be able to clean all the quills completely. Also, the cleaner may choke up now and then when it strikes a bunch of filling that has been cut by the feeler.

In spite of these drawbacks, quill cleaning will be much faster and

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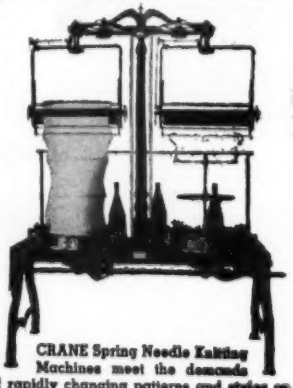

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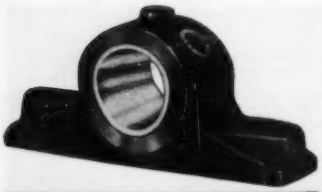

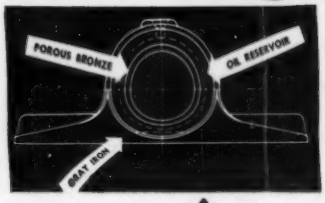

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Questions and Answers

(Continued)

easier than your present method of hand-cleaning.

Various "kinks" are used by mills to remove the filling bunches from quills. Some of these homemade arrangements use compressed air to unwind the filling from a number of quills at one time. Other mills use a hand reel or rig up a motor- or belt-driven reel to unwind a large number of quills at one time.

Feeding these devices is rather slow, since the quills must be placed on individual spindles and the ends started unwinding by hand. Cleaning with your machine would be much faster even if you had a fair percentage of quills that were not completely cleaned.

Loom Drop Wires Are Used on Slashers

Technical Editor:

Have drop wires ever been used on a slasher in the manner and for the purpose that they are used on looms? (9426)

Drop wires are used rather extensively on slashers when the more expensive fine yarns are run. On coarser counts where it is relatively easy to correct breaks when the warp is tied in the harness, drop wires ordinarily are not used.

Probably the determining factor should be whether it is more economical to pay for having the ends placed in the drop wires or to correct warp breaks after slashing.

Cloth Expander Bars Help Prevent Creasing

Technical Editor:

We are having difficulty in processing cloth open-width so that creases are kept out of it. Most of the creases occur at the padder squeeze, and many of them are not removed. Sometimes creases also occur on the dry cans.

Will expander bars prevent creasing? Where should they be located for the most effective use? (9425)

The use of expander bars or revolving scrimp rolls would help in reducing crease marks. A pair of them placed in front of the padder so that as many of the wrinkles as possible could be removed before the squeeze would be desirable. Once creases or wrinkles are pressed into the fabric, they become extremely difficult to take out.

Another set of expanders installed

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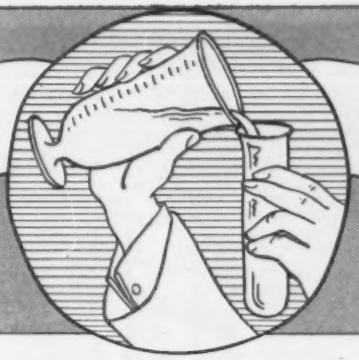
Recently, Mr. Aibel wrote, "*We find your Catalog invaluable in locating sources for our various mill requirements. Often we are pleased to discover that a machine exists for a job we have on hand. We find equally as illuminating your section on Mill Reference Data.*"

If PRE-FILED TEXTILE CATALOGS is not available in your mill for buying reference, write to McGRAW-HILL CATALOG SERVICE, 330 West 42nd Street, New York 18, N. Y. There is no charge to qualified users.



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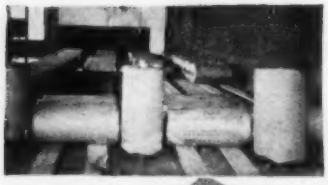

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Questions and Answers

(Continued)

immediately ahead of the dry cans and perhaps additional expanders placed at strategic points throughout the dry-can range would be helpful.

The cloth should be kept at the widest possible width until it is set by drying. The expanders can be set at varying angles to each other so that greater or less tension can be applied to the cloth. This setting depends upon the speed at which the goods are run and also upon the amount of stretch necessary to take out wrinkles. The revolving rubber surfaces of the expanders grip the cloth and tend to spread it evenly across its width.

Fast-Color Printing Done With Vat Colors

Editor's note:

In the November, 1950, issue on page 209 we published the following question and answer. We were advised that our answer was not complete, since it omitted the practice of printing with resin-bonded pigments. We are reprinting here the original question and answer and are including some details of the resin-bonded-pigment method.—Editor

Technical Editor:

How is fast-color printing done in the United States? (9401)

Fast-color printing in this country is generally done with rapidogen, indigosol, and vat colors. After the design has been applied, the cloth is dried.

When rapidogen and indigosols are used, the cloth is given an acid steaming after drying. If vats alone are used, straight steaming is all that is necessary. The cloth is then air-oxidized, washed to remove the thickener, and dried again.

—◆—

Printing with resin-bonded pigments has met with much favor, and such colors are used in large quantities by print works everywhere. They may be used in multicolored patterns to make up all the colors in such patterns. They are also often used along with vat colors, stabilized azoics, or vat leuco esters in the same type patterns.

Such pigment prints generally possess excellent light fastness, and earlier objections to their crocking and wash fastness have been overcome. Printing qualities are good for line, blotch, or peg work; and, in addition, the mark obtained through the use of these colors is sharp and clear-cut.

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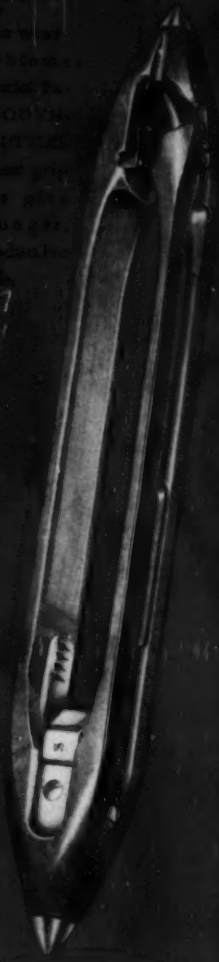

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Book Reviews

Short but Concise History of Weaving

FIVE GENERATIONS OF LOOM BUILDERS, a History of Draper Corporation, by William H. Chase; Draper Corp., Hopedale, Mass.; cloth, 87 pages, no charge.

WILLIAM H. CHASE

This short but fact-filled book is divided into two equally interesting parts. The first part is the story of loom building by the Draper family, with origins in the eleventh century in Brittany, from the days of the hand-loom weaver to the modern Draper automatic loom. The second part is a textile-man's survey of the origin and development of the spinning and weaving arts, ranging from the primitive tools of bygone centuries to the labor-saving machinery of today. The combination of Mr. Chase's intimate contacts with the Draper family for over three generations and his evident love for the historical in the world of the textile arts serves him in good stead as the author of this survey. Every weaving library will want to have a copy of this readable but concise report; and every man interested in the textile-industry's past should read it, if only to refresh his memory.

Basic Review Of the Fiber Field

TEXTILE FIBERS, by L. E. Parsons and John K. Stearns; International Textbook Co., Scranton 9, Pa.; cloth, 184 pages, $4.

This book will serve as a practical guide to the properties of the raw materials and yarns that are used in the production of today's fabrics. As a handy reference for the chemist, manufacturer, and student, each of the four parts (cotton, wool, man-made fibers, and yarns) is arranged independently of the others, with a series of review questions at the end of each part. Basic descriptions, charts, and statistics are clear and adequate for an understanding of the over-all textile field, but they do not carry beyond 1949. Descriptions of dynel, Amilar (DuPont's trade name for Fiber V), and Chemstrand, for example, are not included. But for him who wants in one place a solid survey of the fiber field historically and up to a year ago, this book is a "natural."

Exhaustive Text On Treating of Water

WATER TREATMENT for Industrial and Other Uses, by Eskel Nordell; Reinhold Publishing Corp., 330 West 42nd St., New York 18; cloth, 525 pages, $10.

The conditioning and treatment of water supplies for both industrial and domestic uses involve one in the measurement and treatment of impurities. The 18 chapters in this thorough book include textual information, photos, line drawings, cross sections, charts, tables, formulas, graphs, and an extensive bibliography for each chapter. Subjects covered include water requirements, current water-treatment practices in various industries, boiler feed waters, cooling waters, water softening, chemical reactions, methods of analysis, and processes and equipment used.

What To Do If "It" Comes

YOUR BUSINESS AND THE A-BOMB, by the Staff, Research Institute of America, 292 Madison Ave., New York 17; paper, 25 pages, one complimentary copy per mill obtainable by writing to Member-Relations Division.

Most textile mills will probably never feel the impact of an atomic bomb. But if one's mill by chance did fall within an actual target area, what would be the procedure for alleviating the effect of the concussion damage? A mill's approach to the problem can be clarified by this memorandum originally prepared for Research Institute of America members, and now available in single copies to textile mills generally. The report consists of pointing out measures that can be taken now by any industrial plant for the protection of its walls, equipment, workers, contracts, inventory, community in general, and business position in case of indirect hit.

Textile-Mills' Systems Of Communications Surveyed

CASE BOOK OF EMPLOYEE COMMUNICATIONS IN ACTION, by Industrial Relations Div.; National Association of Manufacturers, 14 West 49th St., New York 20; paper, 32 pages, no charge for single copies.

During the past three years the NAM has conducted 300 "communications clinics" on the easing of industrial tensions and building up of employee-employer understanding. This booklet details the experiences of some 200 representative companies studied. Samples of communications on a variety of subjects are given verbatim. Matters discovered to be of special interest to employees are (1) information about the company operations themselves, (2) information about policies and practices affecting employees and their jobs, (3) information about special situations as they arise, (4) and information about the economic situation and its effect on the company.

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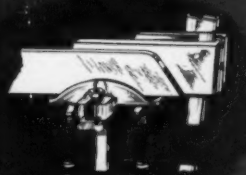
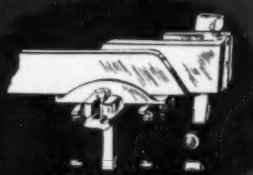
Made in two styles, moulded lug and endless type, these checks float with the motion of the picker stick. No other straps require so little attention.



ENDLESS TYPE



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OTHER SCHIEREN PRODUCTS for textile mills include the new Rayon-Core* Flat Leather Belting, which combines the pulley gripping ability of first quality leather with a stretch-resisting core that maintains initial tension. This belt runs straighter. It does an outstanding job on Winders, Strippers, Eccentrics and Knitting Machines. Schieren also supplies all types of straps, pickers, aprons, disks, etc. *Write for complete information or price quotations on any of the above products.*

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News of the month

New Name for Fiber V. "Dacron," formerly called Fiber V, is the trademarked name decided upon by E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., for its synthetic polyester textile fiber that it has been evaluating since 1946. Technically the new fiber is a condensation polymer obtained from ethylene glycol and terephthalic acid. Quantities of both continuous-filament yarn and staple as required for development work are made in an experimental station at the Seaford, Del., plant of the Nylon Div. Design of a Dacron plant near Kinston, N. C., is under way; and construction is expected to start sometime this year. Dacron has high tensile strength, high resistance to both wet and dry stretching, good resistance to degradation by chemical bleaches and abrasion, excellent resilience and resistance to wrinkling, easy launderability, good electrical-insulation properties, resistance to fungi and molds, and ability to dry quickly and heat-set easily.

Pot Spinning of Worsted Yarns. The cheapest way to spin a worsted yarn is by the centrifugal-spinning methods with pots, John J. McCann, Lowell, Mass., inventor of the McCann system of spinning, told a recent meeting of the AATT in New York. The cost of pot-spinning machinery per spindle is still unknown; but as compared to ring spinning, though pot-spinning equipment is more expensive per spindle installed, much higher production overcomes the initial price disadvantage. The first commercial installation of the pot-spinning equipment is a 100-pot frame now installed at Abbot Worsted Co., Graniteville, Mass. The pots are driven over 10,000 rpm. No piecing-up is necessary during spinning.

Molten-Metal Dyeing Techniques. In its present state of development, the Standfast Printers & Dyers Ltd. molten-metal dyeing method is best used for dyeing through a leuco-vat dye bath floating on the metal surface,

TEXTILE CALENDAR

Lyon International Fair, Fair Grounds, Lyon, France, March 31 to April 9, 1951.

ASME, textile meetings, Atlanta Biltmore Hotel, Atlanta, Ga., April 3 and 4, 1951.

International Utrecht Industries Fair, Fair Grounds, Utrecht, Holland, April 3 to 12, 1951.

Swiss Industries Fair, Fair Buildings, Basel, Switzerland, April 7 to 17, 1951.

Milan Fair, Fair Grounds, Milan, Italy, April 12 to 29, 1951.

Virginia-Carolinas Quality Control Group, spring meeting, School of Textiles, N. C. State College, Raleigh, N. C., April 13, 1951.

American Society of Lubrication Engineers, national convention, Bellevue-Stratford, Philadelphia, Pa., April 16 to 18, 1951.

National Packaging Exposition, Atlantic City, N. J., April 17 to 20, 1951.

CATCC, Quebec Sect., Mount Royal Hotel, Montreal, Que., April 21, 1951.

International Textile Exhibition, Parc des Expositions, Lille (Nord), France, April 28 to May 20, 1951.

National Assn. of Hosiery Mfrs., annual meeting, Claridge Hotel, Atlantic City, N. J., April 30, 1951.

Hosiery Industry Conference, Claridge Hotel, Atlantic City, N. J., April 30 and May 1, 1951.

Knitting Arts Exhibition, Atlantic City Auditorium, Atlantic City, N. J., April 30 to May 4, 1951.

American Material Handling Society, materials-handling conference, International Amphitheatre, Chicago, Ill., April 30 to May 4, 1951.

National Materials-Handling Exposition, International Amphitheatre, Chicago, Ill., April 30 to May 4, 1951.

British Industries Fair, Earls Court Hall, London, England, April 30 to May 11, 1951.

Textile Institute, annual conference, Brighton, England, May 1951.

AATCC, New York Sect., Swiss Chalet, Rochelle Park, N. J., May 4, 1951.

Greater New York Industrial Show, 71st Regiment Armory, New York, May 7 to 11, 1951.

AATCC, Hudson-Mohawk Sect., Albany, N. Y., May 11, 1951.

Cotton Mfrs. Assn. of Georgia, annual convention, Sheraton Plaza and Princess Issena Hotels, Daytona Beach, Fla., May 16 to 18, 1951.

Prague International Fair, Prague, Czechoslovakia, May 20 to June 3, 1951.

American Society for Quality Control, annual convention, Hotel Cleveland, Cleveland, Ohio, May 23 and 24, 1951.

Canadian International Trade Fair, Toronto, Ontario, May 28 to June 8, 1951.

AATCC Southeastern Sect., summer outing Radium Springs, Ga., June 8 and 9, 1951.

Seattle International Japanese Trade Fair, Edmundson Pavilion, Seattle, Wash., June 15 to 30, 1951.

ASTM, annual meeting, Atlantic City, N. J., June 18 to 22, 1951.

STA, annual convention, Mayview Manor, Blowing Rock, N. C., June 21 to 23, 1951.

Chicago Yarn Men's Club, golf outing, Elmhurst Country Club, Chicago, Ill., June 28, 1951.

Summer Refresher Course, Teachers College of Columbia Univ. and U. S. Testing Co., Hoboken, N. J., July 23 to Aug. 10, 1951.

American Chemical Society, diamond jubilee, New York, Sept. 3 to 7, 1951.

AATCC, annual convention, Statler Hotel, New York, Oct. 17 to 19, 1951.

Packaging Institute, annual forum, Hotel Commodore, New York, Oct. 22 to 24, 1951.

1952

Plant Maintenance Show, Convention Hall, Philadelphia, Pa., Jan. 16 to 19, 1952.

Textile Wet Processing Equipment and Supplies Exposition, 71st Regiment Armory, New York, April 1952.

1954

American Textile Machinery Exhibition, sponsored by National Association of Textile Machinery Manufacturers, Atlantic City Auditorium, Atlantic City, N. J., April 26 to May 1, 1954.

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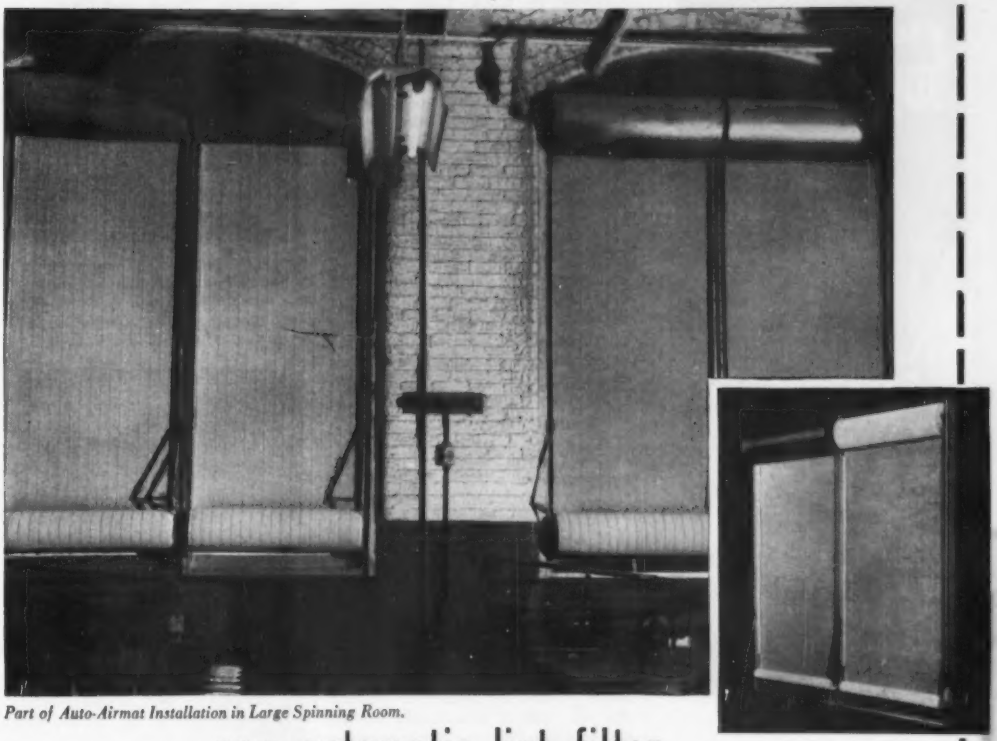

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Excessive lint concentrations in weaving and spinning rooms create an expensive maintenance problem for necessary humidifying systems. Auto-Airmat . . . automatic, dry-type filter . . . was developed by AAF engineers to maintain high efficiency lint collection and reduce this costly maintenance factor to a minimum.

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NEWS OF THE MONTH

(Continued)

Ormond W. Clark, Calco Chemical Div., American Cyanamid Co., recently told the Southeastern Section of the AATCC. For vat dyeing by methods in which an aqueous dispersion of vat dye is first padded on and the fabric is then passed through a caustic and hydro bath floating on the metal surface, the Standfast machine allows much less time for reduction and fixation than the American pad-steam and Williams-unit methods. The metal alloy in the Standfast machine is worth $4,000. Alloy losses in dyeing can amount to 0.1¢ per yard if the metal is not melted out of the fabric in subsequent boiling water or soap baths and recovered from the cooled liquid. Nothing is known yet on the possibilities of the hot caustic and hydro solutions attacking the alloy in any way.

Hot-Oil Dyeing. A hot-oil dyeing process suitable for the application of vat, sulphur, direct, and other dyes has been developed by General Dyestuff Corp., New York. The process is carried out in the standard Williams unit originally devoloped by the firm. From 20 to 30 gal. of white mineral oil, raised to 215 to 230° F., serves as the development bath. Vat-color fabrics are pigment-padded, it is said, and developed in the unit. Sulphur colors are applied in reduced state and passed through the hot oil for complete fixation. Oil is removed from the fabric by a subsequent emulsifying bath. Advantages of the patent-pending process include excellent color reproduction and shading, no tapering of shade during the run, good appearance, and economy on short runs.

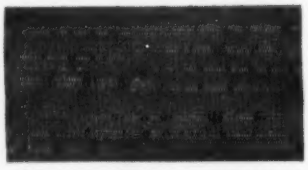
Saco-Lowell To Build Bird System. Saco-Lowell Shops, Biddeford, Me., is to build commercially the Bird system of universal drafting of fibers from one to nine inches in length that has been developed by Collins & Aikman Corp. at its Research and Technical Control Div., Bristol, R. I. [TW, June, '50, p. 89]. Among the fibers of various lengths run successfully on the system so far are wool top, scoured wool, cotton, mohair, viscose, ramie, alpaca, nylon, Dacron, and Chemstrand. Patents on the system have been granted to Whitworth F. Bird, vice president of Collins & Aikman.

Textron Puerto Rico Expansion. Textron Puerto Rico, Inc., is planning a $7,000,000 expansion program of its cotton-weaving operation on the West Indian Island possession. Under the plan, Textron Puerto Rico is putting up $2,500,000 and is obtaining $3,500,000 from the Insular Development Bank and $1,000,000 from the Puerto Rico Development Co. The construction of a finishing plant is contemplated. When the entire Textron Puerto Rico operation is completed and running full, annual value of production is expected to rise to $20,000,000.

Improved Long-Staple Cotton. Cotton of extra-long staple lengths have been developed to a point where they equal or surpass the strength of Egyptian cottons, the National Cotton Council stated in a survey recently made public. Six out of eight cotton mills reporting on the running of more than 3,000 bales of Amsak cotton (grown in Arizona, New Mexico, and around El Paso, Texas) declared that gray-

Versatile "Thick-and-Thin" Rayon-Yarn Adaptable To Different-Textured Fabrics

NOVELTY SHEER CREPE woven entirely of a new Du Pont "Thick-and-Thin" rayon yarn has been developed by J. P. Stevens & Co., Inc.



YARN-DYED TAFFETA woven of "Thick-and-Thin" rayon yarn and acetate rayon yarn was recently brought out by Duchess Fabrics, Inc.

VELVET woven of 100% "Thick-and-Thin" rayon yarn is made in 38-in. widths in a full range of colors by Martin Fabrics Corp.

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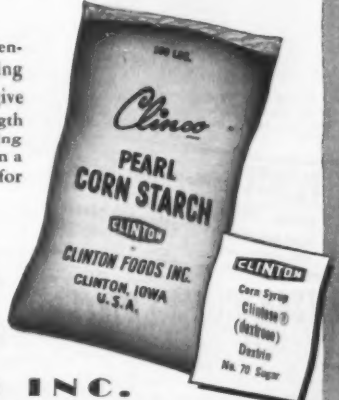

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To keep exact filling tension always constant, specify this important Watson-Williams Shuttle Improvement on your S6 Loom Shuttle Tension Eyes. With the Blanchard Quarter Turn Locked Adjusting Screw, your own center or rear tension setting remains unaffected by loom vibration or shuttle handling.

Four evenly spaced grooves are channeled into the sides of each tension screw hole in the shuttle eye.

Ingenious spring wire bent down into two grooves of the screw, keeps the screw in place.

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Greensboro, N. C. office, Jefferson Bldg.

NORTHERN REPRESENTATIVE:
Guy C. Burbank, 32 Beaconsfield Rd., Worcester 2, Mass.

yarn strength of the American long-staple variety seemed as strong as or stronger than its Egyptian counterpart, Karnak. Four mills reported that in appearance Amsak was equal to or better than Karnak. Three reported Amsak inferior, and one said it was neppier than Karnak. Other troubles encountered with Amsak included slight charges of static electricity and occasional "honeydew" from cotton aphids. Amsak processes economically and blends well with Karnak and other long-staple cottons.

Synthetic Furs for Arctic Flyers. Nylon fiber applied to a backing of knit cotton coated with rubber, called synthetic wool and mouton, will soon be a part of the U. S. Air Force Arctic clothing. The Air Matériel Command aero-medical laboratory is testing synthetic furs as a substitute for hard-to-get wool and mouton in flight jackets, trimming, and lining of parka hoods and caps. The new "furs" have undergone functional tests at 65° F. below zero. As nylon is a poor conductor of heat, the parka wearer's face stays warm. Since nylon doesn't absorb moisture readily, frost is easy to brush off. The fur can be dyed any color. The Air Force is also experimenting with synthetic mouton made from a blend of dynel and Vicara.

Herringbone Twill Superseded. A new type of cotton sateen cloth with almost twice the wearing qualities of herringbone twill has been developed by the Department of the Army. The Quartermaster Corps is purchasing over several months' time 15,000,000 yd. of the sateen for manufacture into jackets and coats for work garments. The new fatigue clothing will not be issued to troops, however, until present supplies of herringbone twill uniforms are exhausted. The new sateen, like herringbone twill, is 8.5 oz. to the square yard. It was tested in laboratories, at the Quartermaster Corps combat course at Fort Lee, Va., and by troops in the field. The reverse side of the material was found to have the greatest resistance to abrasion.

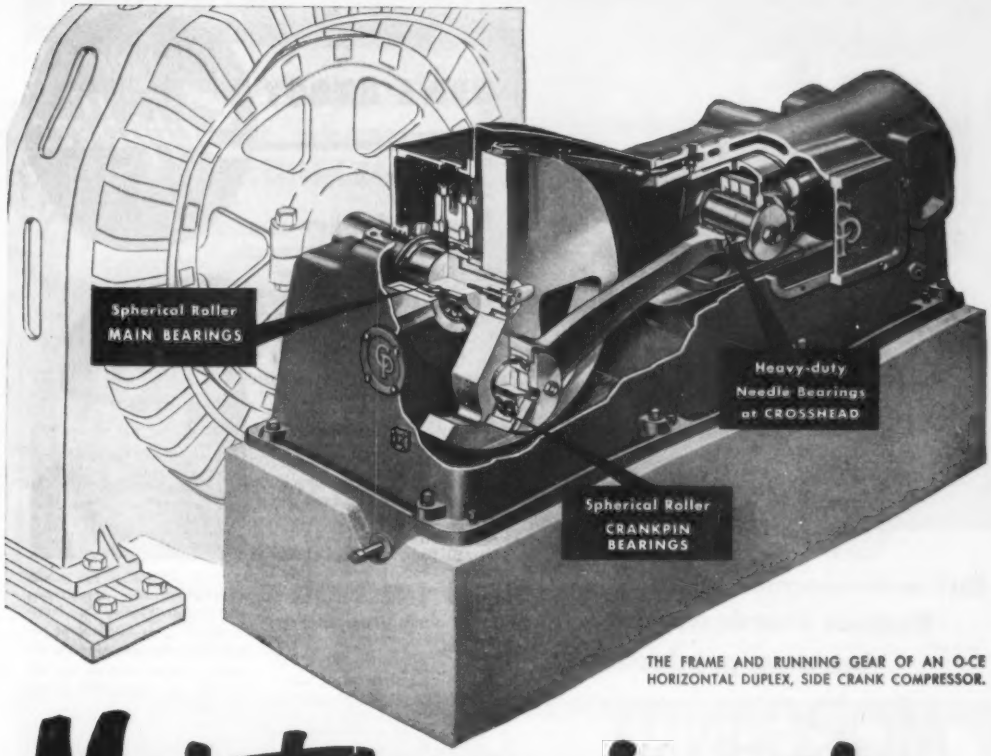
ITT President Resigns. Stephen A. McClellan, president of Specialtie, Inc., Syosset, N. Y., has resigned as president of the Institute of Textile Technology, Charlottesville, Va. Pressure of work in connection with the defense effort at Syosset is said to have occasioned his resignation at the Institute. An executive committee appointed by the board of trustees of the Institute is directing the school's program until a new president has been selected.

Peanut-Fiber Production Up. Ardil, a comparatively inexpensive British protein fiber made from peanuts, will by the end of the year be produced at the rate of 20,000,000 lb. annually, Dr. David Traill, Nobel Div., Imperial Chemical Industries Ltd., recently told members of the Textile Institute at Manchester. Similar to wool and easily mixed with it, Ardil is warm and resilient and is more crease-resistant than some other synthetic fibers. Its tensile strength is less than that of cotton or nylon, and its wet strength is less than that of wool. Ardil has been mixed successfully with rabbit fur for hat manufacture and in worsted yarns for use in knit fabrics. In blends it imparts a silken hand and appearance.

Textile Seminar at Lille. An international Congress of Scientific Research as applied to the textile industry will be held May 8 and 9 at the coming International Textile Exhibition at Lille, France (April 28 to May 20). The *Institut Textile de France* has organized the sessions with a view to improving textile-manufacturing techniques in all countries. Thirty-six papers will be read at the Congress. M. Ariste Potton, president of the International Silk Association, is chairman of the two-day get-together.

Only representatives of bona-fide non-commercial research organizations are being invited to attend.

Studying Belgian Cotton Mills. Possible application of American methods to Belgian cotton-textile manufacturing is the subject of a three-month study now under way by Wallace Clark & Co., Inc., New York, through the cooperation of ECA and the Belgian government. Members of the three-man team now visiting Belgian mills and attending seminars and meetings with the Association of Belgian Cotton Weavers include Norman E. Horn, former UN textile consultant in China; John F. Bogdan, professor of textiles and research supervision at N. C. State College School of Textiles, on leave of absence; and Ian C. Walker, head of the textile-engineering staff of the James W. Cox organization in New York. The group will report back to New York, Washington, and Brussels in June.



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Class O-CE Motor-driven Compressors are furnished in sizes up to 2000 h.p.

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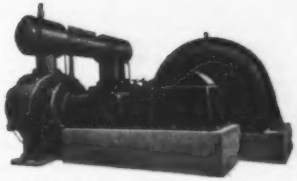

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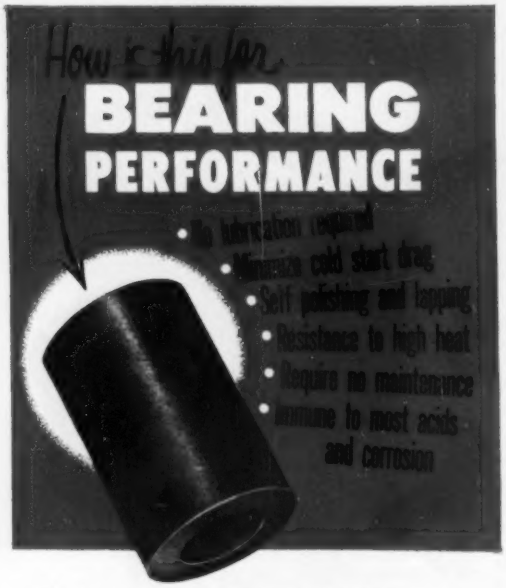
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NEWS ABOUT *Suppliers*

Equipment Suppliers

American Safety Table Co., Inc., Reading, Pa., has appointed Samuel S. Wolff chief engineer. For eight years chief engineer of Century Electric Co., Mr. Wolff in his new capacity will be in charge of Amco cost-cutting and handling-equipment research.

Bentley Knitting Machinery Organization, Inc., Providence, R. I., has named Edward L. Murphy, Jr., its sales engineer. Mr. Murphy is a graduate and former instructor at New Bedford Textile Institute, and was for 10 years in charge of laboratory and technical detail work for Brown-Durrell Co.

Cleveland Crane & Engineering Co., Wickliffe, Ohio, recently appointed Ancel C. Adams its general plant superintendent. Formerly assistant plant superintendent, Mr. Adams has been with the company for 28 years.

Cochrane Corp., Philadelphia, Pa., has appointed S. B. Applebaum manager of the water-treatment division. Since 1949 Mr. Applebaum had been manager of the cold-process section of the division.

Gastonia Roller, Flyer & Spindle Co., Inc., Gastonia, N. C., has been chartered to deal in textile machinery and parts. Authorized capital is $100,000. Incorporators are George Mason, John Howard, and R. N. Roseboro, all of Gastonia.

General Electric Co., Schenectady, N. Y., has made the following staff changes: Edwin H. Howell to be special representative of the apparatus department at Washington, D. C.; Donald E. Craig to be manager of sales of the meter and instrument divisions; George P. Patteson to be assistant to the manager of sales of the large motor and generator divisions; and Ralph B. Bodine and Robert M. Easley to be manager and assistant manager of large-generator and converter sales in the large-motor and generator divisions.

***PAUL P. JOHNSON** has joined the administrative organization of Universal Winding Co., Providence, R. I., as assistant to the president. He was formerly director of plant location and rebuilding at Saco-Lowell Shops, Biddeford, Me.*

Emmons Loom Harness Export Co., Lawrence, Mass., has made Lowenstein & Stewart S.A.C., Santiago, Chile, its sales agent in the country for the company line of equipment, succeeding W. L. Robinson.

Hemphill Co., Pawtucket, R. I., has added Theodore T. Toole, Jr., to its staff. He will do special sales and promotion work out of High Point, N. C., under the direction of James McDowell, Southern sales director. He was formerly assistant to the vice president of Bloomingdale Bros., New York.

Industrial Dryer Corp., Stamford, Conn., has appointed R. E. L. Holt, Jr., & Associates, Greensboro, N. C., its agent for the company line of yarn and fabric conditioners in the Southern territory.

Industrial Heat Engineering Co., Greenville, S. C., has been appointed by Maxon-Premix Burner Co., Muncie, Ind., as Southern representative for the company line of gas-mixing and burning equipment.

Johnson & Bassett, Inc.,

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INCREASED PRODUCTION
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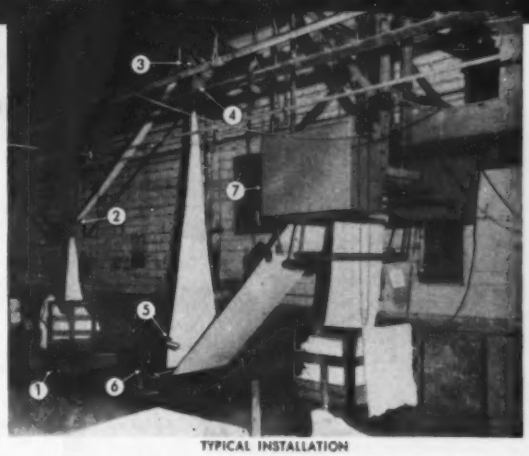

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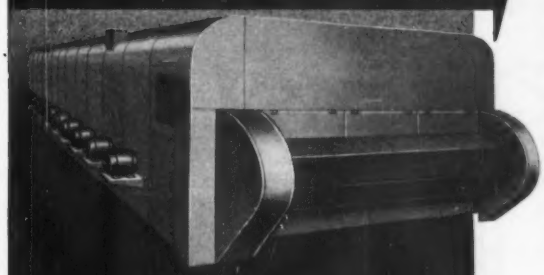
SARGENT'S STOCK DRYER



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used in testing of Detergents at Wyandotte Chemicals Corporation

ATLAS Launder-Ometers, used to determine properties of detergency, color fastness, and resistance to washing and mechanical action, accurately reproduce washing conditions at accelerated speeds.

A typical application of the Launder-Ometer is a series of exhaustive tests conducted by theU. S. Army Quartermaster Corps and the Wyandotte Chemicals Corp. to determine the degree of sterilization and fading caused by various laundering and sterilization treatments of two selected types of Army fabrics—a cotton knit, and a 50% wool, 50% cotton knit. In these tests, the fabric samples were washed in a number of solutions containing chlorine-liberating germicidal agents, while mechanical action was simulated by 15 stainless steel balls introduced into each jar.

Results of these tests enabled the Quartermaster Corps to develop sterilization procedures for Army Mobile Laundry Units, and to obtain a fabric capable of withstanding rugged washing. In this, as in many other ways, testing in Atlas Launder-Ometers resulted in substantial savings and better materials.

New research model Launder-Ometers for accelerated testing of larger samples have recently been developed by Atlas. These units, with capacities ranging from 20 pint jars to 6 half-gallon containers, are now part of the complete line of standard Launder-Ometers.

ATLAS ELECTRIC DEVICES CO.

361 W. SUPERIOR ST., CHICAGO 10, ILLINOIS

Originators and sole manufacturers of

FADE-OMETERS • WEATHER-OMETERS • LAUNDER-OMETERS

300 For more information, write direct or use Reader Service post card.

NEWS ABOUT SUPPLIERS (Continued)

C. F. CLINE, JR., has been named technical representative of the mechanical-goods division of U. S. Rubber Co., New York, with headquarters in a new branch office in Charlotte, N. C. He is to supervise sales and technical service for a new line of company textile specialties in the Southeast.

Worcester, Mass., recently elected Jefferson E. Williams and Joseph G. Byran vice-president and a director respectively. Mr. Williams is also factory manager and clerk of the company, while Mr. Byran fills a vacancy caused by the resignation of Edgar L. Ramsdell.

Oscar Kohorn & Co., Ltd., plans to construct in West Virginia a rayon plant for Eastern Yarn Mills, Cleveland, Ohio, with a production capacity of 12,000,000 lb. annually of tire yarn and tow. An undetermined amount of vicose staple will also be produced.

Minneapolis-Honeywell Regulator Co., Philadelphia, Pa., has expanded its valve-division engineering personnel and departmental facilities by 400% in a program for developing new industrial-valve designs, applications for new and existing products, and speedier production and deliveries.

Rice Barton Corp., Worcester, Mass., has elected George Sumner Barton to chairman of the board, while Charles Sumner Barton has been elected president. The new president had been a vice president for over eight years. Lester M. Start and Everett W. Clem were elected vice presidents.

Joseph T. Ryerson & Son, Inc., St. Louis, Mo., is undertaking an expansion program that includes reconstruction and new layout of the present plant and construction of additional warehouse space to the amount of approximately 50,000 sq. ft. Over-all expansion will amount to 161,000 sq. ft., and will be completed by the end of the year.

Saco-Lowell Shops, Boston, Mass., has elected F. Gorham Brigham, Jr., assistant treasurer of the company. He has been with the firm for over five years, since 1949 as assistant secretary.

Morris Speizman Co., Inc., Charlotte, N. C., has named A. C. Gregg production manager of the organization, to be in full charge of the hosiery-rebuilding department, machine shop, and stock and parts shipping and processing.

Stellite American Corp., New York, U. S. representative of Stellite Soc. in Acc. Sempl., Milan, Italy, recently promoted Victor Saxl from manager and engineer to vice president.

Westinghouse Electric Corp., Pittsburgh, Pa., has appointed E. C. Delano manager of the New England district, with headquarters in Boston, Mass., succeeding L. E. Lynde, newly elected vice president who has moved to the company Washington, D. C., office. Other vice presidents elected include Tomlinson Fort, manager of apparatus sales at Pittsburgh; L. W. McLeod, Southwestern district manager; and Emery W. Loomis, Middle-Atlantic district manager.

PAUL F. HADDOCK, formerly with American Cyanamid Co. in the South, has joined Sandoz Chemical Works, Inc., New York. He is Southern supervisor of sales of chemicals and textile aids, and is located in Charlotte, N. C.

Smooth

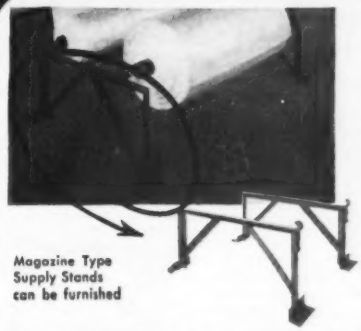
HEIM "Unibal"
SWEEPSTICK

For Really Smooth Pick Action

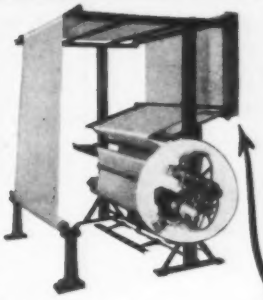
The **HEIM** "Unibal" sweepstick has a self-aligning Spherical Bearing rigidly pressed into a body of resilient, shock absorbing, rubber-bonded fabric. The **HEIM** Spherical Bearing used in its construction consists of a single steel ball, through which the stud passes, rotating in bronze bearing inserts. Slack in the pick motion becomes a thing of the past, and a much longer period of service is obtained. Write now for descriptive circular and prices.

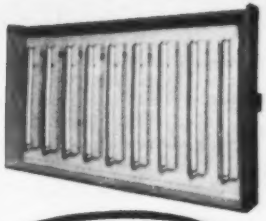
THE HEIM COMPANY
FAIRFIELD, CONNECTICUT

"Standard" CLOTH INSPECTING, MEASURING AND WINDING MACHINES



Magazine Type Supply Stands can be furnished





Standard Fluorescent Lighting Fixture connected to our Cloth Inspecting, Measuring and Winding Machine.

The New Standard Cloth Inspecting, Measuring and Winding Machines are equipped with V-Belt Variable Speed Drive, manually controlled, which provides variation in yardage speeds from 11 yards per minute to 57 yards per minute. Inspection board is adjustable to any height and angle desired. All moving parts have replaceable bearings.

Our Fluorescent Lighting Fixture provides 24-hour daylight. Increases efficiency, eliminates eye strain and steps up production. There is an even distribution of light, without glare. 9 Fluorescent tubes are controlled by 4 toggle switches, perfectly diffused by indestructible, white opal Plexiglas. You can have as little or as much light as the particular fabric requires.

STANDARD MILL SUPPLY

PAWTUCKET, R. I.
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NEW YORK, N. Y.
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wrapping as you like it

You can be sure of good package appearance when you wrap on Hayssen Automatic Wrapping Machines . . . and the unit-cost of wrapping will be low. Because Hayssen machines are mechanically simple, rigid, and have few moving parts, the maintenance cost is lower and machines have a longer life. Ask for free descriptive literature—no obligation.

HAYSSEN MFG. COMPANY • SHEBOYGAN, WIS.

Hayssen
ELECTRIC EYE WRAPPING MACHINES

VISIT US AT BOOTHS 503 AND 504 ATLANTIC CITY APRIL 30—MAY 4

News About Suppliers (Continued)

Winsor & Jerauld Mfg. Co., Providence, R. I., has appointed Edward H. Olansen production manager of tentering machinery. He was formerly field-service supervisor. Arthur C. Maxfield, formerly with Harris Textile Machinery Co. and Marshall & Williams, has joined the firm as chief engineer. Edward Wharmby, former manager of the Providence plant of H. W. Butterworth & Sons, has also taken a position with Winsor & Jerauld.

Chemical and Yarn Suppliers

American Resinous Chemicals Corp., Peabody, Mass., has elected Georges F. Doriot and Horace F. Ford directors of the firm.

Barreled Sunlight Paint Co., Providence, R. I., is the new name of the former U. S. Gutta Percha Paint Co. The same family ownership that has guided the firm since its foundation in 1886 continues under the new name.

Bryant Chemical Corp., North Quincy, Mass., has added to its sales staff Jack Jones, formerly with Scranton Lace Co. Mr. Jones will cover Rhode Island and Southern New England.

Celanese Corp. of America, New York, plans the construction of a large petro-chemical and cellulose-acetate plant in the Edmonton area of Alberta, Canada. A new Canadian affiliate, Canadian Chemical Co. Ltd., has been formed in Alberta to build and operate the plant on a site already selected.

Colgate-Palmolive-Peet Co., Jersey City, N. J., has appointed J. M. Nykiel sales manager of the industrial department. Formerly supervisor of the Chicago division, Mr. Nykiel has been with the company for 20 years.

E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., recently made personnel changes in three divisions of the rayon department. Dr. Edward F. Wesp, director of the viscose-rayon research section, is now assistant manager of the planning division. Dr. E. A. Tippetts, assistant director of the viscose-rayon research section, becomes director. Henry C. Froehling, manager of development and promotion of Orlon acrylic fiber and "Acele" rayon, is now assistant director of sales of the acetate division. Walter R. Heed has become manager of the sales-promotion section of the acetate division. The company plans expansion of its Repauno plant at Gibbstown, N. J., for the supplying of DMT for Dacron production at Kinston, N. C. Dacron is the commercial name of old Fiber V. An improved process for the commercial production of hydrogen peroxide has been announced.

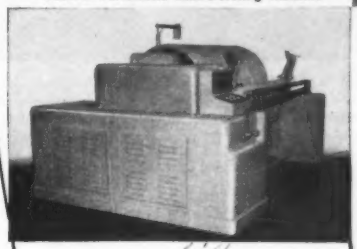
B. F. Goodrich Chemical Co., Cleveland, Ohio, has arranged with SCAP and Japanese industrial firms to construct facilities in Japan for the manufacture of polyvinyl chloride. The new plant, located at Kambara, 65 miles from Tokyo, will be staffed entirely by Japanese.

Goodyear Tire & Rubber Co., Akron, Ohio, has appointed A. E. Whitney, Jr., special representative of the chemical division, with headquarters in New York. He will offer technical service in New England and the Mid-Atlantic states on company vinyl resins.

Industrial Rayon Corp., Cleveland, Ohio, recently named Dr. Gilman S. Hooper assistant manager of high-

***WILLIAM F. WEINREICH** is in charge of the Worthington Pump & Machinery Corp. newly acquired Oil City, Pa., plant. Formerly assistant superintendent of machine shops at the Buffalo, N. Y., plant, his new title is assistant to the vice president. He moves to Oil City in June.*

Gessner Versamatic Semi-Decating Machine



"The American Way"

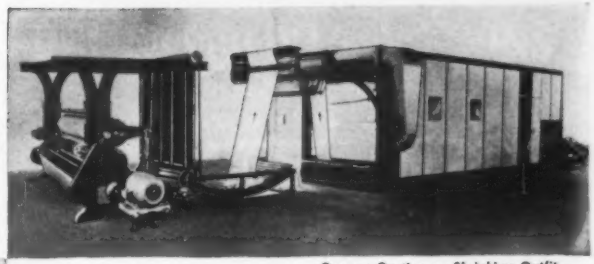
GUARANTEED COMPLETE PROTECTION FOR ALL TEXTILE FABRICS

DAVID GESSNER CO.

Worcester, Massachusetts

IMPROVED CLOTH SHRINKING MACHINERY

Canadian Representative: W. J. Westaway, Montreal, Quebec, Hamilton, Ont.



Gessner Continuous Shrinking Outfit

Customers appreciate thorough shrinking, improved handle and finish

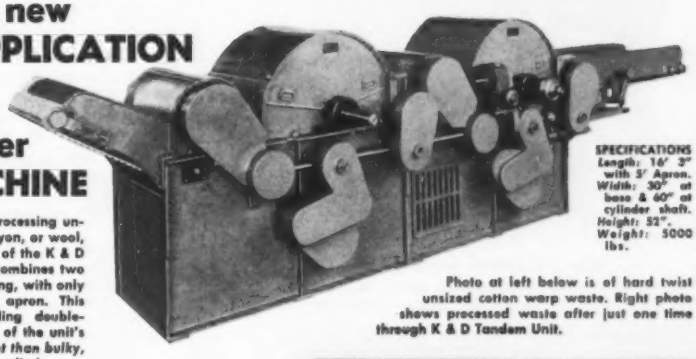
Compliments by customers for goods thoroughly shrunk and with improved handle and finish, are a familiar story to American London Shrinkers Corporation, which has treated more than 5,000,000 yards of fabric on its new Gessner Continuous Shrinking Outfit and then refinished on Gessner Decating Machines.

"The fabrics we shrink range in weight from 8 to 28 ounces — worsteds of all types, gabardines, blends of rayon and worsted and of wool and worsted — with production from 25 to 35 yards per minute. We use this Shrinking Drier for Cravenetting and have been able to do a very good job as verified by a number of Cravenette Co. tests.

We encourage you to utilize our name in conjunction with the promotion of your equipment."

YOU CAN NOW WHIP THE "HARD WASTE" PROBLEM

with this new TANDEM APPLICATION of the K & D Single Cylinder WASTE MACHINE



SPECIFICATIONS
Length: 16' 3" with 5' Apron.
Width: 30" at base & 60" at cylinder shaft.
Height: 52".
Weight: 5000 lbs.

Designed to meet the need for processing unsized "Hard Waste" in cotton, rayon, or wool, this new TANDEM APPLICATION of the K & D Single Cylinder Waste Machine combines two single-cylinder units in one housing, with only one feed apron and one exit apron. This TANDEM APPLICATION, providing double-action waste processing on each of the unit's two cylinders, is far *more efficient than bulky, conventional machines with four cylinders.*

Photo at left below is of hard twist unsized cotton warp waste. Right photo shows processed waste after just one time through K & D Tandem Unit.

The mill* which sent the "Hard Waste" sample shown at right ordered one K & D TANDEM UNIT immediately after we ran their samples. They were so pleased with their installation that they have already ordered additional units! (*Name of Mill on request.)

Write, wire, or telephone for details of uses, cost, and installation of the new Tandem Application of the K & D Single Cylinder Waste Machine.

Kirkman & Dixon

MACHINE SHOP AND FOUNDRY

Greenwood, South Carolina

Manufacturers of K & D Single Cylinder Waste Machines, F-5 Hopper Feeders, in any width, Sargent Combs For Hopper Feeders.

EXTRA

economy
and efficiency
when you
Desize with

EXSIZE-T

Exsize-T is the *most economical . . . most efficient* of all desizers. Effective over a wide temperature range. Gives uniformly excellent results.

Safe! *Exsize-T* is not a harsh chemical . . . but a liquid enzyme concentrate. Easy to use. Fast in action. Write today for free booklet.

WRITE FOR FREE BOOKLET

PABST BREWING CO.

"Exsize-T" is the registered trademark of Pabst Brewing Company.

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PABST
SALES COMPANY
221 N. La Salle Street
CHICAGO 1, ILLINOIS

News About SUPPLIERS (Continued)

OPEN HOUSE of Warner & Swasey Co., Cleveland, Ohio, was recently held for employees. The W & S—Sulzer weaving machine attracted special attention among company-produced exhibits set up to engender enthusiasm for the drive to recruit new workers for the firm.

polymer research for the firm. A member of the research staff for two years, Dr. Hooper was for 15 years in the acetate division of the rayon department of the Du Pont organization.

Mathieson Chemical Corp., Baltimore, Md., has appointed John F. Synan manager of the product-development department, reporting to Dr. George Vincent, director. He has been with the chemical firm since 1939.

Monsanto Chemical Co., St. Louis, Mo., recently named John L. Gillis, vice president and general manager of the Merrimac Division at Boston, Mass., to the position of general manager of the organic-chemicals division, with headquarters in St. Louis. Charles H. Sommer, Jr., succeeds Mr. Gillis at Merrimac Division.

Moreland Chemical Co., Inc., Spartanburg, S. C., has named Donald Bain, Jr., assistant secretary and treasurer.

Owens-Corning Fiberglas Corp., Toledo, Ohio, has appointed George S. McElroy project manager for the new company Fiberglas yarn plant at Anderson, S. C. He is now directing the building and equipping of the plant, as well as supervising training of future key plant personnel at Newark, Ohio.

Stein, Hall & Co., Inc., New York, recently promoted Daniel H. Lipman to the position of assistant general sales manager. Edwin A. O'Neill, formerly manager of the company office in St. Louis, Mo., succeeds Mr. Lipman as manager of the New York sales office.

Sun Chemical Corp., Long Island City, N. Y., has appointed Donald J. Eccleston general manager of the textile-chemical division. He was formerly sales manager of the company pigment colors.

Other Services

Barnes Textile Associates, Inc., Boston, Mass., and Spartanburg, S. C., has opened a New York office, with David P. Canavan in charge. Mr. Canavan was formerly vice president of Harry E. Stocker Associates.

Robert Gair Company, Inc., New York, has appointed John Driscoll manager of the New York sales office. He had been assistant to the general manager for folding cartons.

Institute of Textile Technology, Charlottesville, Va., has added Jerry A. Garrett, analytical chemist, to its technical staff. Mr. Garrett for the past two years was assistant chief chemist at Beaunit Mills, Childersburg, Ala.

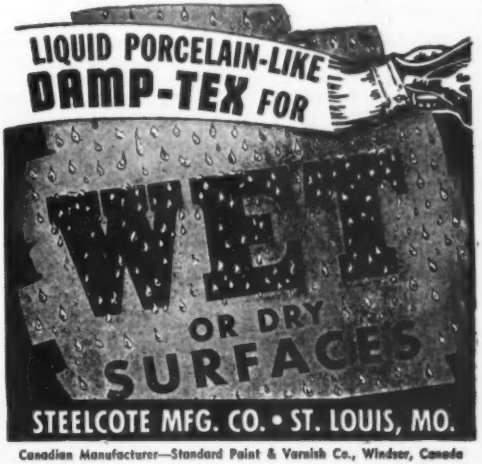
Philadelphia Textile Institute, Germantown, Pa., has made known that Dr. Richard S. Cox, dean, was recently elected a Fellow of The Textile Institute, Manchester, England.

Rhode Island State College, Kingston, R. I., has set up a program in textile engineering in cooperation with the R. I. Textile Assn., to start in September. Another course in textile chemistry and dyeing will be given in the college School of Arts and Sciences.

DON'T SWEAT OVER WET PLANT DETERIORATION ...RUST OR FUNGUS

STOP THEM WITH AMAZING DAMP-TEX ENAMEL

The Damp-Tex system of painting stops rot, rust, bacteria and fungus growth. Puts a porcelain-like finish on wet or dry wood, metal, concrete and plaster with equal ease and efficiency. Damp-Tex resists steam, 2% caustic solution and lactic acid. Comes in white and colors. Used in over 8,457 plants. Send for details of our trial offer "AA".



STEELCOTE MFG. CO. • ST. LOUIS, MO.

Canadian Manufacturer—Standard Paint & Varnish Co., Windsor, Canada

WESCO STOPMOTIONS

FOR

OUTERWEAR • UNDERWEAR • HOSIERY

STANDARD EQUIPMENT
FIDELITY MACHINES

THE NEW FIDELITY 400

Years of know-how and engineering experience built this machine with the WESCO Electric Stop-Motion. That's why so many manufacturers and knitters throughout the world turn to WESCO, for its "know-how" results in less down time—more production, fewer broken needles, and wasted yarn. WESCO Stop-Motions are built in any series from 1 to 96 ends. Specify WESCO for bigger profits from your knitting machines.

LOOK FOR WESCO

on all these knitting machines:

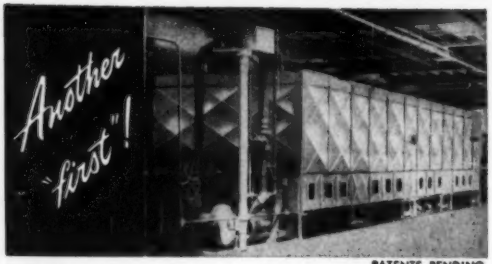
H. Brinton Co.
Charles Cooper Co.
Crane Manufacturing Co.
Edmos Products Corp.
Fidelity Mach. Co., Inc.
Jacquard Knitting Mach. Co.
Lamb Knitting Mach. Co.
Leighton Machine Co.
Ordnance Gauge Co.
Scott & Williams, Inc.
Stafford & Holt, Inc.
Supreme Knitting Mach. Co.
Wildman Mfg. Co.

STANDARD THE WORLD OVER

STOP MOTION DEVICES CORP.

1471-77 Fulton St. Brooklyn 16, N. Y.

Another of a Series of Knitting Machine Builders. Others to Follow.



PATENTS PENDING

COMBINES the advantages of 3 types of oven-heating:
(1) INFRA-RED RADIATION (2) CONVECTED HEAT
(3) HEATED AIR—with added turbulence

CARBOMATIC "UNA-RAY" OVEN

Greatly increased efficiency! For example: *40* linear feet of "Una-Ray" Oven equal the productive capacity of *70* feet of a conventional oven-type. Saves thousands of dollars in equipment cost and operational economies. No burning, scorching, spotting or marking of goods. No crocking. No "gas fading" or color migration. Uniform color is insured.

A general-purpose oven (of any capacity needed) that provides accurately-controlled working temperatures up to 550°F. For drying; drying and curing in one operation; resin fusing; Nylon setting, etc. *Write for Bulletin TW-4.*

CARBOMATIC CORPORATION • Pioneers in Textile Infra-Red
24-81 47th Street Long Island City 3, N. Y.
Southern Branch: Textile Specialty Co., Greensboro, N. C.
New England Representative: H. E. Linderson, 35 Westminster St., Providence, R. I.

For Maintained Shrinkage—
Perfect Finish—Long Life

HUYCK
COMPRESSIVE SHRINKAGE
BLANKETS

for use in shrinking fabrics to the *"Sanforized"* standard by the Compressive Shrinkage process, are daily meeting the most exacting requirements of finishers throughout the industry. From the lightest and finest fabric to the heaviest denim, there is a special Huyck blanket to meet your specific needs.

Huyck blankets retain high shrinkage and finish properties to the last.

PALMER BLANKETS—also available for your special requirements.

Write for information or see our representative

F. C. HUYCK & SONS
KENWOOD MILLS
Rensselaer, N. Y.

NEWS ABOUT Mills

Cotton Mills

American Thread Co., Clover, S. C., has work progressing on schedule on its new addition. New section will cost $300,000 exclusive of equipment and will house new carding, twisting, and winding machinery being shipped to Clover from company's New England plants.

Androscoggin Div., Bates Mfg. Co., Lewiston, Me., has installed the first of 240 new looms. The equipment, costing more than $439,000, will create 60 new jobs and an additional payroll of $170,000 annually.

Canadian Cottons Ltd., Cornwall, Ont., is planning plant addition and office building for its Glengarry Cottons plant at Cornwall. Initial estimate for plant addition is over $1,000,000. Proposed office building may be used for Canadian Cottons head office, now in Cornwall.

Carolinian Mills, Inc., High Shoals, N. C., is constructing a two-story building for weaving and related processes containing about 52,380 sq. ft. of floor space. Plans were prepared by McPherson Co., Greenville, S. C. Building will measure 135x194 ft. and will be air-conditioned.

Dan River Mills, Inc., has begun excavation for $3,500,000 storage building at Danville, Va. Building will be five stories of reinforced concrete, 316x190 ft. United Engineers & Constructors, Inc., Philadelphia, Pa., is engineer. Company is letting separate contracts.

Graniteville Co., Graniteville, S. C., is making extensions in boiler house, with installation of new boiler (with rating of 100,000-lb. of steam per hour) and accessory equipment.

Joanna Cotton Mills, Clinton, S. C., has completed plans for construction of homes in new subdivision of mill village and their sale to employees on small down payment and long terms. Lackwood Greene Engineers, Inc., has laid out proposed subdivision.

Charles Lachman Co., Inc., Phoenixville, Pa., has awarded a general contract for construction of an industrial-waste pretreatment plant to Lauter Construction Co., Philadelphia. Allbright & Friel, Inc., Philadelphia, is engineer for project. To be included are a one-story brick pumping station and control building, blowers, chlorine pumps and feeders, piping, scale room, and equalization tanks.

Linn Mills Co., Concord, N. C., has begun trial runs and will be in full production soon. Company is located in former White Park Mill, which was purchased about six months ago by Linn Co. of Landis, N. C. Mill has been completely remodeled, with new sections added to allow more space for various departments. Operations are beginning with about 5,000 spindles to be increased by 2,000 later. New mill will produce combed yarn.

Pacific Mills has closed option on a 500-acre farm near Clover, Va.

Pacolet Mfg. Co., Gainesville, Ga., has begun excavation work for foundations of one-story 41,000-sq. ft. weave room. Three-story extension of about 40,000 sq. ft. is in progress at company's mill at nearby New Holland.

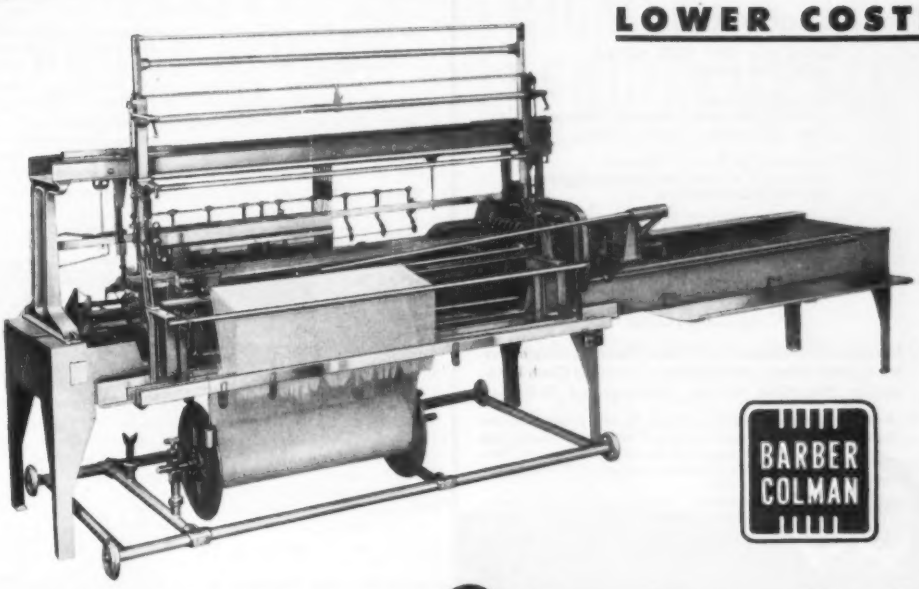
Ragan Spinning Co., Gastonia, N. C., a division of J. P. Stevens & Co., Inc., is reconverting its plant to combed cotton yarns. Mill was switched from combed-cotton to spun-rayon yarns about the middle of last year.

Texas Textile Mills, Dallas, Tex., has purchased Lambert Building at 2115 N. Akard St., Dallas, and will utilize second floor as an office for the executive staff of the corporation.

FASTER REPLACEMENT

STRAIGHTER WARPS

LOWER COSTS



BARBER COLMAN

BARBER-COLMAN MODEL E *Warp Drawing Machine*

The Model "E" Barber-Colman Warp Drawing Machine is designed to cover the needs of a wide variety of weaving mills. Manufacturers of shirtings, broadcloths, lawns, voiles, sateens, ginghams, dress goods, and sheetings, or mills running filament rayon, will find this particular model extremely suitable. Mills having a predominance of cam loom weaving, or whose cloth construction does not require more than 8 harness and 6 banks of stop motion, and where styles and patterns are frequently changed, will find this model exceptionally useful.

Field reports show up to 4500 Ends per Hour
Will draw warp from 10 to 300 ends per inch
Will draw from flat sheet or 1 x 1 lease
Will draw from single or double beam or split sheet
Will draw 1 x 1 lease in double beam or split sheet

Warp threads are drawn through drop wires, heddles and reed
IN ONE OPERATION
from a pre-determined draft

HARNESS FRAME LENGTHS	
Size of Machine	Maximum Overall Length of Harness
48	54"
66	72"
86	92"

MACHINE CAPACITY

The Model "E" can be furnished in the following capacities at no difference in cost:
Reed, 8 Harness, 6 Banks of Drop Wires
Reed, 10 Harness, 4 Banks of Drop Wires
DROP WIRE CAPACITY: 9/32" through 3/4" wide

WILL DRAW

- Cotton Yarns
- Filament Yarns
- Spun Yarns
- Woolens and Worsteds
- Monofilaments

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.
FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY

BARNES SERVICE *Consulting Engineers*
TO THE TEXTILE INDUSTRY FOR OVER ¾ CENTURY

Announces:

1. Opening of a NEW YORK OFFICE at 522 Fifth Avenue.
2. Inauguration of a new Methods and Materials Handling Division with headquarters in New York Office.
3. Appointment of David P. Canavan in charge of Methods and Materials Handling and the New York Office.
4. Expansion of BARNES EXECUTIVE SERVICE FOR TEXTILES

Barnes men of wide executive experience are made available to mill management for short or long periods.

Inquiries are invited

Surveys—Reorganizations—New Plant Developments for Cotton, Wool, and Synthetic Yarn and Cloth Processing, Bleaching, Dyeing, Printing and Finishing.

★ Plant Appraisals ★ Mechanical and Operating Surveys – New Methods ★ Scheduling and Planning ★ Work Load Studies, Job Analysis and Evaluation, with Incentive Plans ★ Standard Cost Installations ★ Cost Control Methods

Labormeter Burden-meter Waste-meter

BARNES TEXTILE ASSOCIATES, Inc

10 HIGH STREET, BOSTON 10, MASS.
315 MONTGOMERY BLDG., SPARTANBURG

In textile mills
Save time—Save work
USE
SHAMROCK

CANVAS BASKETS, TRUCKS, HAMPERS, OPERATORS' BENCHES

Made in standard sizes or in special sizes to meet your needs . . . Write for complete catalog.

Manufactured by
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ATLANTA—6483 Jefferson St. Chamblee, Ga., Phone 2430

SALES OFFICES
SAN FRANCISCO—c/o Glenn B. White & Assoc. Merchandise Mart, HE 1-5294
LOS ANGELES—c/o Glenn B. White & Assoc. 1151 So. Broadway, PR 4169

News About Mills (Continued)

Virginia Mfg. Co., Whitesburg, Ga., has leased one-story building at Carrollton, Ga., and plans to improve and equip it for branch mill.

Washington Mills, Fries, Va., is making extensive changes to improve quality of cloth. Company is installing 80 new drawing frames in carding department. New cleaning and picking equipment will replace practically all machines now being used.

Williamston Cloth Mill of Textron Southern, Inc., Williamston, S. C., has completed addition with 27,800 sq. ft. of floor space, and new looms are being installed as rapidly as they are received from manufacturer. When all new equipment has been installed, looms will total 1,100 as compared with former 684. Mill manufactures print cloth.

Woolen and Worsted Mills

American Woolen Co. has agreed to rent or lease all of its buildings in Maynard, Mass., with the exception of the No. 1 mill of Assabet Mills. Mills have been closed since last October.

Atlantic Wool Combing Co., a new Rhode Island firm, has bought from Crescent Corp. Fall River, Mass., part of former Manville Mills, Manville, R. I. In addition to building which contains 45,000 sq. ft. of floor space, sale also included land for expansion. The mill has been idle for about three years since Crescent purchased property from Textron. New plant will produce French worsted top, and will require a working force of between 125 and 150 persons.

Belton Bagging Co., Belton, S. C., has work going forward rapidly on construction of new plant, which will contain 75,000 sq. ft. of manufacturing space. Plant is scheduled to be completed in the near future.

Bigelow-Sanford Carpet Co. has leased a 17-story building in Amsterdam, N. Y., to be used for blanket weaving and other defense contracts with as little disruption of regular carpet production as possible. Building, formerly operated by Chalmers Knitting Co., has 170,000 sq. ft. of floor space and is held by Bigelow on a seven-year lease. Installation of blanket looms and necessary finishing equipment is proceeding rapidly.

Clinton Woolen Mills, Clinton, Me., has opened again after expenditure of over $100,000. Production will be coordinated with other mills under Clinton management at Corinna and Orono, Me.

Crescent Woolen Mills Co., Two Rivers, Wis., has let contract to Hoffman Bros., Inc., Two Rivers, for one-story addition to mill, about 54x100 ft.

Goodall-Sanford, Inc., Sanford, Me., is reconverting old Minerva Mill, used as a warehouse for many years, into a weave room. Company is installing 100 new Crompton & Knowles W-3 looms. New unit is expected to be producing Palm Beach fabric by early summer.

James Lees & Sons Co., Bridgeport, Pa., is planning to build a new sewage-disposal plant. Company is also working on plans for a $300,000 plant addition at Glasgow, Va. Building will be of one-story steel-and-block construction, and will connect with present plant building. United Engineers & Constructors, Philadelphia, Pa., is architect and engineer.

Majestic Spinners, Ltd., a newly formed company with François Cleyn of Huntingdon, Quebec, as president, has taken over machinery and equipment of Alltex Industries, Ltd., and plant on Caradoc St., Strathroy, Ont., from estate of late Henry Greisman. Plans for modernizing plant call for replacement of all worn machinery. Bulk of worsted yarns produced in Strathroy will be shipped to parent plant, Spinners, Ltd., of Huntingdon.

McCormick Spinning Mills, McCormick, S. C., a division of Deering, Milliken & Co., has begun construction of an addition to worsted-yarn plant. Of 87,000 sq. ft. of floor space, 40,000 sq. ft. will be used to process new synthetic fibers in combination with wool and for a wool-top-dyeing operation. Other space will be used for warehouse space.

Troy Blanket Mills, Troy, N. H., is planning to build a

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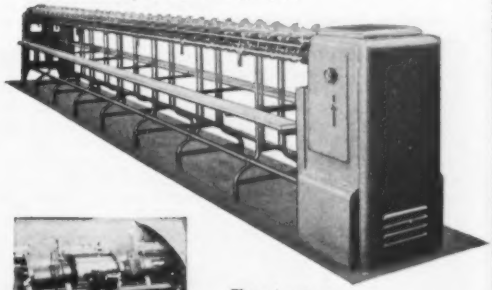

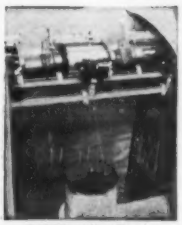

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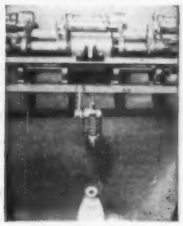
Full Spool Stop Motion



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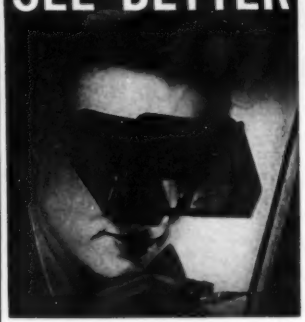

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News About Mills [Continued]

two-story warehouse which will replace major storage area in old mill and outlying buildings. Company purchased new spinning frames, looms, and a bobbin-winder during past year.

Synthetics Mills

American Enka Corp., with plants at Lowland, Tenn., and Enka, N. C., is increasing its original expansion program because of international developments. At Enka, expansion will be accomplished mostly by improving present facilities, and at Lowland number of employees will be increased from 700 to 1,000.

American Velvet Co., Stonington, Conn., is constructing 23,000-sq. ft. plant addition to house additional weaving and finishing facilities for manufacture of military goods. Fifty-six latest-model plush looms will be installed. The addition provides 23,000 sq. ft. of floor space. 10 of 200 velvet looms have been converted to produce military pile fabrics and from 20 to 25 more are to be changed over in immediate future.

Amoskeag Industries Inc., No. 3 Mill, Manchester, N. H., has been purchased by Verney Corp. for manufacturing purposes as soon as its facilities can be geared to firm's expansion program.

Beaunit Mills, Inc., has announced plans for a new plant to produce high-tenacity viscose rayon cord for automotive tires to be constructed adjacent to company textile rayon-yarn plant at Coosa Pines, Ala. The new plant will have a capacity of 27,000,000 lb. per year. It is expected that the plant will be ready for operations in about a year.

Bruck Silk Mills, Ltd., with head office in Cowansville, Que., is planning to build a spinning-unit addition to its plant at Cowansville. Addition is to be one-story, 403x 142 ft., windowless, of reinforced concrete construction, and completely air conditioned. Cost equipped is estimated at $1,000,000. C. Davis Goodman, Montreal, is architect.

Burlington Mills Corp., Oxford Plant, Oxford, N. C., plans expansion program which will increase production 50%. Orders have been placed for steel and new-type spinning frames. Expansion plan is subject to government restriction on building. Company has changed name of its Puritan Weaving Mill at Fayetteville, N. C., to Fayetteville Plant, and Gloria Rayon Mill at Johnson City, Tenn., to Johnson City Plant.

Canadian Celanese, Ltd., Sorel, Que., has let contract for addition to its mill at Sorel. J. S. Hewson Ltd., Montreal, builder of present plant, is expected soon to begin work on extensions to building No. 1. J. Larkin, Montreal, is engineer.

Dionne Spinning Mills Co., Beauce, Que., has placed orders for 18,000 new ring-spinning spindles and complementary machinery to meet increasing demand for synthetic and blended yarns utilizing fibers up to 3 in. in length, spun on cotton system.

Drayton Mills, Spartanburg, S. C., has its program of plant expansion and improvement underway. Present plans call for completion by June 1 of new one-story building with 18,000 sq ft. of floor area to be used for filament-rayon twisting; of one-story building, 26x 125 ft., constructed to house air-conditioning equipment; of an extension to card room of about 5,000 sq. ft. About 1,800 new twister spindles will be installed.

Duplan Corp., Cleveland, Tenn., is reported to be doubling the capacity of its local nylon-throwing plant. At its new plant at Burnsville, N. C., operations are beginning on small scale. Equipment for all departments is arriving almost daily.

E. I. du Pont de Nemours & Co., Nylon Div., Wilmington, Del., plans addition to its mill at Seaford, Del. Award has been made for structural steel framing, and work will begin soon.

Haynsworth Mills, Anderson, S. C., has completed 17,000-sq. ft. warehouse addition, at cost of $100,000. Building is designed to create additional manufacturing space when needed and is completely equipped for humidification and air-conditioning.

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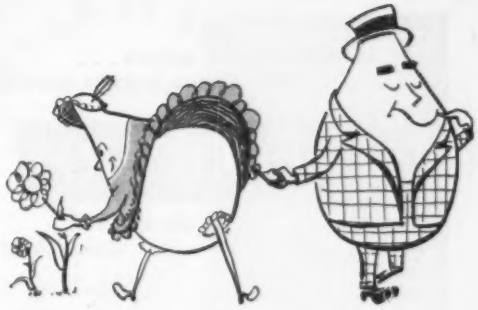

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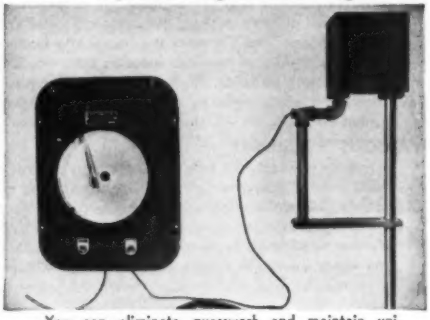

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NEWS ABOUT MILLS (Continued)

Osage Mfg. Co., Bessemer, City, N. C., is adding space for installation of about 160 looms that will be operated on rayon suiting.

Schneider Silk Mills, Inc., Taylorsville, N. C., is beginning construction of a 30,000-sq. ft. addition to plant. Added space will include space for 120 additional looms, new quilling and yarn-conditioning rooms, and additional storage space of 7,000 sq. ft. in basement. Building will be of brick with foam-glass insulation and is scheduled for completion by July 1. Building will cost about $120,000, with Barger Construction Co., Mooresville, N. C., as contracting firm.

Stonecutter Mills Corp., Spindale, N. C., has obtained building permits totaling $108,000 for erection of new manufacturing building and of addition to its present plant. Building will cost $63,000, and addition $45,000.

Watts Mills, a division of J. P. Stevens & Co., Inc., Laurens, S. C., is installing machinery for ply twisting of spun-rayon and cotton yarns in former spinning room. Installation includes ring twisters, cone winders, and high-speed warpers.

Whittaker Nylon Fibres Corp., Worcester, Mass., has installed two specially built Proctor & Schwartz garnetting machines to increase its nylon garnetting operations.

Waverly Mills, Inc., Laurinburg, N. C., will install wide Draper looms and auxiliary equipment for manufacture of sportswear fabrics from synthetic yarns as part of expansion program.

Knitting Mills

Acclaim Hosiery Mills, Inc., Hartsville, S. C., has acquired 10 acres of additional property to take care of future expansion, and mill has been enlarged to give space for additional knitting machines. Ten 30-section, 51- and 60-gage full-fashioned knitting machines will be installed.

Berkshire Knitting Mills, Reading, Pa., plans to build a new full-fashioned nylon hosiery mill near Andrews, N. C. Excavation work is to start in near future, with mill scheduled to be ready for operation in early 1952. C. M. Guest & Sons, Anderson, S. C., will build mill, which will employ about 325 persons.

Burlington Mills Corp. has begun construction of $1,000,000 addition to its Wadesboro Hosiery Mill, Wadesboro, N. C. About 30 new knitting machines and auxiliary equipment will be installed in new wing. Plans call for completion before end of this year.

C&D Hosiery Mill, Hickory, N. C., has been purchased by Dan Whisnant and Clyde Young, of Hickory, from Wade Bowman. Concern is engaged in dyeing and finishing men's hosiery. Mr. Whisnant and Mr. Young have leased and operated the plant since 1948.

William Carter Co., Needham Heights, Mass., is nearing completion of construction program which will double facilities at its Forsyth, Ga., plant. Over-all program of construction and addition of new equipment will necessitate hiring of additional employees. Reconstruction recently undertaken at company mill in Springfield, Mass., has been completed.

Fergusson Atlantic Underwear Co. Ltd., Moncton, New Brunswick, Canada, has discontinued woolen-yarn spinning and heavy-hosiery knitting. Underwear divisions of plant will continue to operate, and cotton yarns will be purchased in open market as in past. Plant operates 40 latch-needle and 12 spring-needle underwear machines, sewing machines, and other equipment.

Fogleman-Jefferies Corp., Burlington, N. C., plans construction of brick building on North Church St. which will contain more than 16,000 sq. ft. of floor space and house executive offices and central warehouse facilities. Addition will more than double company's present capacity.

Grenada Industries, Inc., Grenada, Miss., plans enlargement program. Mill now employs 550 persons with an annual payroll of $1,500,000. New program will call for an additional 150 persons on pay-

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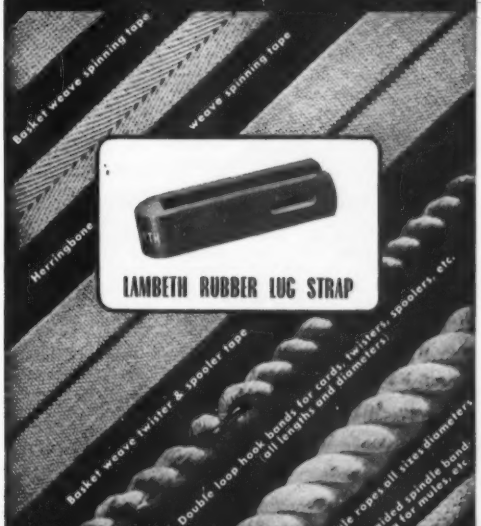
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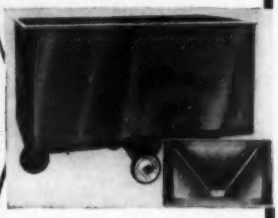

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News About MILLS (Continued)

roll and will be financed by a $200,000 bond issue.

Henfine Mills, New York, which recently purchased portion of U. S. Army's former Camp Butner property near Durham, N. C., and established a 320-machine hosiery plant, has obtained option on 10 additional buildings at the camp. It is said that plans call for a new branch plant employing about 1,000 operatives.

Monarch Knitting Co., Montreal, Canada, has acquired ten acres of land in improvement district of Ajax, Ontario, for installation of model plant for spinning of cotton-blend yarns. Plant, air-conditioned and of latest construction and design, will provide 50,000 sq. ft. of working space for about 150 employees, and will house latest in spinning machinery. It is estimated that total cost will be about $1,000,000.

Munsingwear, Inc., Minneapolis, Minn., and **Vassar Co.,** Chicago, Ill., have approved plans for merger. Vassar will operate as a separate division.

Nolde & Horst Co., Reading, Pa., and its subsidiaries have been acquired by Henri and Hilary Stackgold, of New York. Operations at Reading plant will be increased and additional equipment obtained.

Saluda, S. C.—J. T. Edwards, president of Palmetto Full-Fashioned Hosiery Mills, Inc., plans establishment of new full-fashioned hosiery mill at Saluda. Mr. Edwards will continue as president and general manager of combined knitting and finishing plants at Palmetto as well as director of construction and operation of the new plant. First unit will cost about $200,000.

Sanford Hosiery Mill, Sanford, N. C., is installing new machinery at cost of $100,000 which will increase production of women's hose from 1,200 doz. prs. per week to 1,800 doz. prs. Number of employees will be increased from 70 to 90. Erection of a finishing plant is planned in future.

Sanson Hosiery Mills, Inc., New York, has moved its Allentown, Pa., finishing plant into new and larger quarters at Philadelphia. New quarters are about three times the size of former facilities and employ an additional 225 men and women.

Springdale Mills, Ltd., newly organized, has purchased modern building erected by Esmond Mills (Canada) Ltd. slightly more than three years ago in Perth, Ont. New company will install warp-knitting machines for production of nylon-tricot fabrics. Some equipment may also be installed for converting knitted fabrics into certain classes of wearing apparel.

Vaughan Knitting Co., Pottstown, Pa.—Owners of this firm have tentative plans to construct new plant in Spruce Pine, N. C., to make socks for men and boys. Plan is to erect new mill in Spruce Pine under new corporate title operating separately from Pottstown property.

Dyeing and Finishing Plants

Joseph Bancroft & Sons, Inc., Wilmington, Del., has awarded general contract for additions and alterations at its plant to cost $35,000. John E. Healy & Sons, Inc., Wilmington, Del., is general contractor. Project consists of miscellaneous alterations to buildings 12 and 16A, including four-story, 15x15-ft. elevator shaft. Project also includes construction work in warehouse area.

Clearwater Finishing Co., Old Fort, N. C., new unit of United Merchants & Manufacturers, Inc., has been in operation.

Putnam Finishing Co., Providence, R. I., has filed notice of increase in capital to $1,000,000 and issue of 1,000 shares of stock, no par value, for general expansion.

Reeves Brothers, Inc., New York, will construct a $2,000,000 textile finishing plant on 70 acres of land between Bishopville, S. C., and Lynches River. Lockwood Greene Engineers, Inc., Spartanburg, S. C., is engineer in charge.

Springs Cotton Mills is planning new two-story warehouse at Grace Bleachery, Grace, S. C. New building will contain about 100,000 sq. ft. of storage area and cost more than $500,000. Robert & Co. Associates, Atlanta, is engineer.

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WATER MIXING VALVES

Water Temperature Control

FOR WASHING
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DYEING
OR WHEREVER PROCESS WATER MUST BE AT A STEADY TEMPERATURE TO GET THE BEST RESULTS.

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Lace spindle tapes 10 times faster with Clipper No. 25 Spindle Tape Hooks. Tapes can be prepared in advance so frame is shut down only long enough to place new tape on the pulleys and join ends with connecting pin. Tapes run true—last longer—run smoother—require less tension—VIBRATION IS ELIMINATED

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Lace condenser tapes with Clipper No. 25 Condenser Tape Hooks. Clipper laced tapes, prepared in advance, can be installed in a fraction of the time required for endless tapes. Tape may be purchased in the roll at considerable saving.

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NEWS ABOUT Men

John Adamowicz, former overseer of dyeing for Vassalboro Mills of American Woolen Co., is now with Cyril Johnson Woolen Co., Stafford Springs, Conn.

James B. Anderson has become chief engineer for Stanley Woolen Co., Uxbridge, Mass.

John H. Atkinson has become superintendent of Robesonia, Pa., plant of Caron Spinning Co.

O. B. Ayres has become overseer of spinning for Joseph Bancroft & Sons Co., Reading, Pa., succeeding R. Burns, resigned.

John W. Baskin has been appointed personnel manager of Greenville Mills, Inc., Greenville, Miss., subsidiary of Alexander Smith & Sons Carpet Co.

James R. Bayne, former vice president and managing director of Jantzen Knitting Mills of Canada Ltd., Vancouver, B. C., has been named president. He joined the Jantzen firm as sales manager in 1933 and purchased an interest in business in 1947.

J. A. Bigelow, personnel manager, and **R. W. Butler**, vice president and general manager, of Arms Textile Mfg. Co., Inc., Manchester, N. H., have resigned.

J. Guyton Boston has been named sales manager of acetate filament yarn for Celanese Corp. of America, New York. Mr. Boston was for some time assistant to Harry Price, vice president.

Roy E. Brasil has become general superintendent of Aragon Div., A. D. Juilliard & Co., Aragon, Ga.

S. Kenneth Burnley, for 26 years employed in various executive capacities at Mohawk Carpet Mills, Amsterdam, N. Y., has been promoted to purchasing agent. He will also be buyer of raw materials for Charles Lachman Co., Inc., division of Mohawk at Phoenixville, Pa.

Fred M. Burton has been transferred to Wood Mill of American Woolen Co., Lawrence, Mass., as production engineer. He has held a similar position at Ayer Mill of company since 1942. He has been replaced at Ayer by **Ronald Clamp.**

Frank L. Byrd has been appointed general superintendent of Caledonia Mills, Inc., Lumberton, N. C.

Arthur F. Chace has succeeded **W. B. Pickard** as general manager of Cordova plant of Textron Southern, Cordova, Ala. Mr. Pickard has retired after 43 years service. Mr. Chace came from Puerto Rico, where he served as manager of the Textron plant there.

Charles Cleary has been named overseer of carding at Wyandotte Worsted Co., Waterville, Me., succeeding **Wilfred Duquette**, resigned. **Richard Berry** has become overseer of weaving.

Fred J. Coggeshall, superintendent since 1944 of weaving and finishing department at Bates Div. Bates Mfg. Co., Lewiston, Me., has retired.

W. A. Coggswell has become overseer of sewing for Corriedale Mills, Inc., Moosup, Conn.

William Cox, overseer of finishing for Brookneal Mills Div. of Pacific Mills, Brookneal, Va., has resigned.

Ralph E. Curtis, who has been in charge of carding, spinning, and slashing at Bates Div., Bates Mfg. Co., Lewiston, Me., has been appointed general superintendent of all de-

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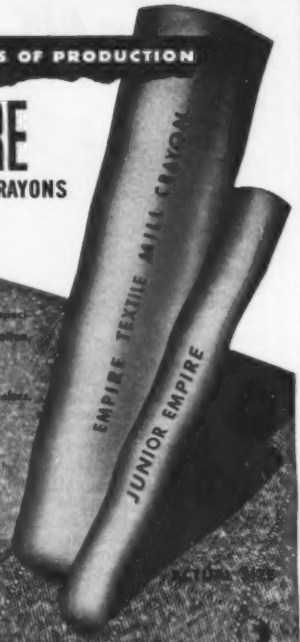

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NEWS ABOUT MEN (Continued)

partments with exception of engineering, dyeing, and bleaching sections.

Vernon Degnan has become overseer of dyeing for Vassalboro Mills of American Woolen Co., Vassalboro, Me.

Bernard Devine has resigned as plant engineer for Delta Finishing Co., Plant 2, Attleboro, Mass., to become power-plant superintendent for American Optical Co., Southbridge, Mass.

Herman A. Dickert, director of the A. French Textile French School of the Georgia Institute of Technology has been named secretary-treasurer of the Textile Operating Executives Assn. of Georgia. Mr. Dickert will succeed **R. W. Philip** of Calloway Mills Co., LaGrange, Ga. who has served the association in that capacity since its formation in 1922.

E. J. Ducharme has become a foreman of dyeing for Bradford Dyeing Association, Westerly, R. I.

Russell Fennell is new superintendent of Hyde Park Mills, Inc., Covington, Tenn.

Raymond J. Fontaine, treasurer and general manager of Guerin Mills, Inc., Woonsocket, R. I., has been elected president in addition to those other offices. As president, he succeeds **John M. Lacouture**, who has been named chairman of board.

Charles S. Fowler has been appointed merchandise coordinator of Textile Division of U. S. Rubber Co., with headquarters in New York.

M. M. Gannon, Brockton, Mass., is now at main plant of Alexander Smith & Sons Carpet Co., Yonkers, N. Y., as industrial engineer.

Wanton E. Gladding, personnel manager of Nylon Div. of E. I. du Pont de Nemours & Co. for the last two years, has been appointed manager of company's first Dacron plant near Graingers, N. C., which will be erected this year. Mr. Gladding will make his headquarters in Wilmington, Del., during the construction period, which is to begin this spring.

Samuel H. Goldman has been placed in charge of overall merchandising and styling in dress-fabrics division of Burlington Mills Corp., New York. Mr. Goldman was formerly president of Gold Rose Fabrics, which is being liquidated.

William H. Gosch, long associated with Nolde & Horst Co., Reading, Pa., has resigned as vice president of that company. He will announce future plans later.

Walter E. Greer, Jr., vice president of Burlington Mills, has been transferred from New York office to executive offices in Greensboro, N. C., where, in addition to his present responsibilities for procurement of raw materials, he will assume responsibilities for all purchasing and have general supervision of several manufacturing divisions.

Morris Gardner has been elected a vice president of the company merchandising organization in charge of production planning.

Frank S. Grieve, formerly yarn superintendent of Assabet Mills of American Woolen Co., Maynard, Mass., is now with Virginia Woolen Co., Winchester, Va.

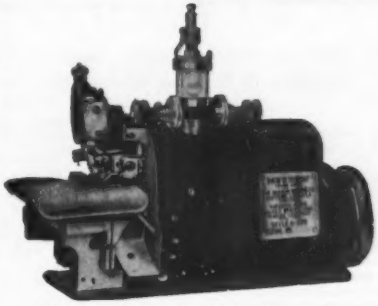
Rufus F. Hale, assistant treasurer of Pacific Mills, Boston, Mass., has been appointed consultant to Economic Security Administration on wool matters.

C. L. Hamilton has been elected president of Crown Cotton Mills, Dalton, Ga., to succeed his brother, the late George W. Hamilton, in that office. He has been vice president and treasurer and will continue as treasurer. **David Hamilton**, former secretary, has been elected vice president.

John Hardy, Sr., a director, manager, and superintendent of Ardmore Hosiery Mill, Ardmore, Tenn., has been elected president, succeeding **C. H. Austin**.

Frank J. Hart has become overseer of spinning at Norwich Mills of American Woolen Co., Norwich, Conn.

Edward J. Hynick, formerly with Fuld & Hatch, has become associated with Ford



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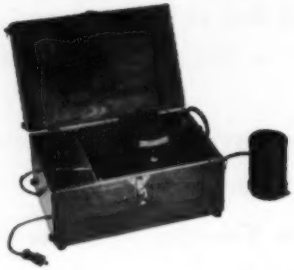

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NEWS ABOUT MEN (Continued)

Mfg. Co., division of Robert Reiss Co., Waterford, N. Y., as overseer.

Lloyd Jackson has become overseer of finishing at Mascoma Mills of American Woolen Co., Lebanon, N. H. **Taiste Haarala** has become overseer of picking and carding, **Edwin R. Lawn** has become overseer of spinning. **Eugene Bean** has become overseer of weaving, and **Earl Simmons** has become overseer of dyeing.

E. W. Johnson has resigned as overseer of carding at Old Bennington Weavers, Inc., Bennington, Vt.

Fred Johnson is now with United States Finishing Co., Norwich, Conn., as assistant chief engineer.

David L. Judson, purchasing agent for the Mojud Hosiery Co., Inc., has been elected vice-president in charge of purchasing and research with headquarters at Greensboro, N. C.

Dexter R. Kneeland is now superintendent of dyeing and bleaching at Bates Div., Bates Mfg. Co., Lewiston, Me.

J. Harrison Lassiter, former assistant to president, has been named a vice president of Chatham Mfg. Co., Elkin, N. C., with which he has been connected for 10 years.

Joseph Leigh, night superintendent of Bates Div., Bates Mfg. Co., Lewiston, Me., has been appointed overseer of No. 5 jacquard weaving department.

Robert Lever, Jr., has become overseer of dyeing for Caledonia Dye Works, Philadelphia, Pa.

John William Lindsay, Jr., has been elected president and treasurer of Guilford Hosiery Mills, Inc., High Point, N. C., to succeed his father, the late J. W. Lindsay.

William P. Malloy has been named assistant to general superintendent of Bates Div., Bates Mfg. Co., Lewiston, Me.

Donald D. McMahon is now manager of Lebanon Woolen Mills Corp. and Lebandale Mills, Lebanon, N. H. Mr. McMahon, formerly with Peerless Woolen Mills, Rossville, Ga., succeeds **Chester C. Wood,** who resigned because of illness after serving in that position for 18 years.

Robert E. McNeill, Jr., has been elected a director of Alexander Smith & Sons Carpet Co., Yonkers, New York.

Charles E. Mears, manager of nylon plant of E. I. du Pont de Nemours & Co., Inc., Chattanooga, Tenn., has been appointed director of production for nylon in the company's Nylon Div. **Edgar H. Bleckwell,** manufacturing superintendent at Chattanooga, has succeeded Mr. Mears as plant manager. **William T. Wood,** who has directed firm's nylon production for three years, was appointed to new post of assistant manager of Nylon Div. in charge of Dacron operations. **Charles M. Switzer** remains as assistant manager of Nylon Div. in charge of nylon.

Harry Mitchell, spinning overseer, has retired after 42 years service with Maine Spinning Co., Skowhegan, Me.; and **Frank Oddy,** overseer of roller-covering department, has retired after 41 years service.

James Oates, Sr., formerly with Dan River Mills, has become superintendent of Apponaug Mfg. Co., West Point, Miss.

William J. O'Shaughnessy has joined Burlington Mills Corp., New York, as quality-control co-ordinator. Mr. O'Shaughnessy resigned from Deering, Milliken & Co., where he had been in charge of quality control. **Harry W. Fleming** will continue as manager of Burlington's New York quality-control department.

William Parker was appointed credit manager of Jantzen Knitting Mills, Portland, Ore. **Reed Swenson** was appointed assistant manager of sweater division of company.

M. A. Parrish, industrial relations director of Firestone Textiles, Gastonia, N. C., since 1944, has resigned to become industrial-relations and personnel director for A. M. Smyre Mfg. Co., Gastonia. He has been succeeded by **T. B. Ipock, Jr.,** safety director for Firestone since 1944.

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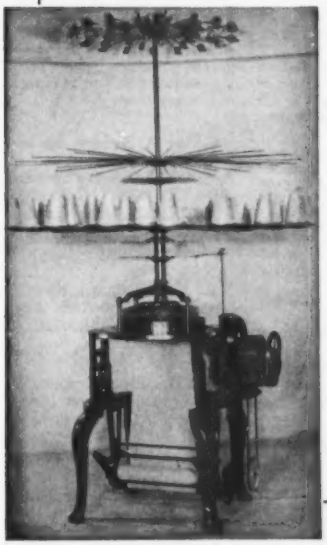

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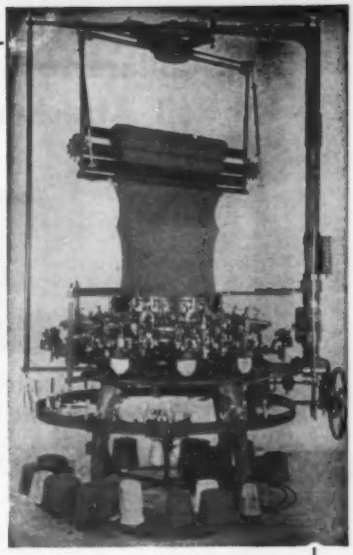

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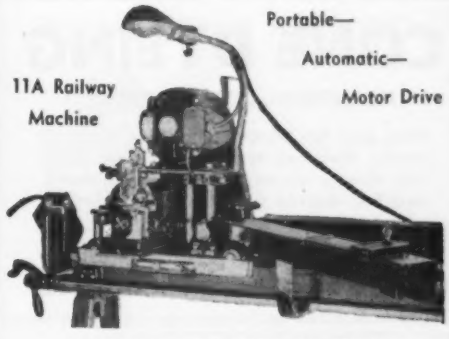

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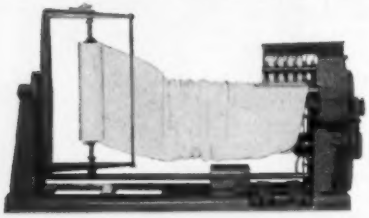

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News About MEN (Continued)

Brandon M. Payne has been named general superintendent of four Cannon Mills plants at Concord, N. C. In this recently created position, he directs operations at plants 2, 5, 9, and 10. **James Funderburk** has succeeded Mr. Payne as superintendent of Plant 2. He was formerly assistant superintendent.

Smith Payne, formerly executive vice president of the Alabama Textile Products Corp., Andalusa, Ala., has joined Wilson Bros., New York, in advisory capacity as industrial engineer.

Richard Powell has become plant manager of new-development plant of Burlington Mills Corp., Greensboro, N. C. Mr. Powell has been plant manager of textile finishing plant of Verney Corp., Peterboro, N. H.

William W. Rader, who was recently elected director of Mooresville Mills, Mooresville, N. C., has assumed full-time duties with company in connection with financial, cost, and accounting phases of business.

Carl Ricci has become overseer of roving and spinning on second shift for Macon Mills, Inc., Talcottville, Conn.

George Ripley has become overseer of spinning for Thomas Woolen Mills Inc., Ludlow, Vt.

Sam Rubin, president of Dr. Parker Holt Knitting Mills Co., Inc., Canton, Mass., has purchased interest in Bilbo Knitting Co., Inc., Cohoes, N. Y., and has been elected a director. Dr. Parker Holt Co. will become exclusive selling agency for Bilbo Mill and will take over latter's entire sales staff.

Alan Salter is now a director of Canadian Cottons, Ltd., with head office at 760 Victoria Sq., Montreal, Que. He is president of Textile Sales Ltd., Montreal, which owns and operates plant of Textile Weavers Ltd., at Grand'Mere, Que. Mr. Salter is also president of Leach Textiles, Ltd., Huntingdon, Que.

R. D. Sanders, who has been treasurer of Morgan Cotton Mills, Inc., Laurel Hill, N. C., has been elected vice president and treasurer of the company. **Julian Butler**, who has been general manager, has been elected vice president in charge of manufacturing.

George A. Sheldon has become superintendent of woolen carding and spinning for new Greenville Mills, Greenville, S. C. **Howard Hogan** has become superintendent of dyeing for same company.

R. J. Steffens has become superintendent of Arms Textile Mfg. Co., Manchester, N. H., succeeding **A. Beck.**

Earl L. Stewart, formerly with Republic Cotton Mills, Great Falls, S. C., a division of J. P. Stevens & Co., Inc., will head the new cost and standards department of Wennonah Cotton Mills, Lexington, N. C.

Joseph L. Suprenant has become superintendent of woolen-yarn department for William Whitman Co., Inc., Arlington Div., Lawrence, Mass. He was formerly overseer of spinning for Faith Mills, Averill Park, N. Y.

M. L. Thompson, has resigned as president and director of Hillcrest Hosiery Mills, Inc., and Hamilton Hosiery Finishers, Inc., Durham, N. C., to take up his new duties as president of Thompson Hosiery Mills, Inc., Kinston, N. C.

Eric Thorp has been appointed president and general manager of Thomas French & Sons Ltd., of New York and Fall River, Mass. He has recently come here from England to take up his new duties.

William E. Wolfe, formerly industrial and production engineer for Union Underwear Co., Inc., has been appointed first vice president, general manager, and a member of board of directors of Scottsboro Knitting Mills, Scottsboro, Ala.

William G. Wood is now head of engineering department at Bates Div., Bates Mfg. Co., Lewiston, Me.

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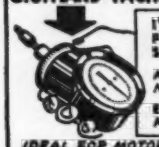

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OBITUARY

Irving I. Danson, 78, founder of the Grand'mere Knitting Co., Grand'mere, Quebec, died recently.

George W. Felker, chairman of the board of Walton Cotton Mill Co., Monroe, Ga., died recently. He joined the company in 1933 as vice president and served as president from 1942 to 1945, when he became board chairman.

Lewis M. Fowler, founder and president of the Palatine Dyeing Co., St. Johnsville, N. Y., died recently.

Walter Geist, 56, president since 1942 of Allis-Chalmers Mfg. Co., Milwaukee, Wis., died recently. He joined the company in 1909 as a messenger boy in the blueprint department.

Thomas H. Handy, 87, former treasurer and one of the founders of the Contrexeville Mfg. Co., Manville, R. I., died recently.

Joseph Kaplan, 75, founder of Young Knitting Mills, Glendale, N. Y., died recently.

R. C. Moore, 78, one of the founders of Thrift Mfg. Co., now Kendall Mills, died recently. During his career, he served as vice president of the North Carolina Cotton Mfrs. Assn., as a director of the Cotton Textile Institute, and as a director of the American Cotton Mfrs. Assn.

Courtland Palmer, 61, president of Russellville Mills, Inc., Russellville, Ala., and Du-Court Mills, Kings Mountain, N. C., died recently.

Frank A. Scholes, 76, former president of Priscilla Braid Co., Central Falls, R. I., died recently.

George S. Squibb, 61, president until his retirement in 1945 of the Rhode Island Textile Co., Pawtucket, R. I., died recently.

John W. Allis, 85, vice president of Utica Knitting Co., Utica, N. Y., died recently.

Jacques Masurel, 62, vice president of Masurel Worsted Mills Inc., Woonsocket, R. I., died recently in France.

William H. Mitchell, 87,

ERNEST D. GOSSWEILER, 62, president and director of Sandoz Chemical Works, Inc., died recently. After working for Sandoz Ltd. in England and Switzerland, Mr. Gossweiler came to this country in 1919 to found the American firm.

vice president and a director of Maine Spinning Co., Skowhegan, Me., died recently.

George W. O'Keefe, 56, vice president in charge of sales for Proctor & Schwartz, Inc., Philadelphia, Pa., died recently.

Charles M. Engers, 74, traffic manager with the Dixie Mercerizing Co., Chattanooga, Tenn., died recently.

Charlie W. Gauntt, 65, associated for 50 years with West Point Mfg. Co., West Point, Ga., died recently.

Francis W. Gully, personnel manager for M. J. Shittall Associates, Worcester, Mass., died recently.

Herbert L. Toms, Sr., purchasing agent for Ora Mill Co., Shelby, N. C., until his retirement two years ago, died recently.

Harold H. Williamson, for many years a news correspondent for TEXTILE WORLD at New Bedford, Mass., died recently.

Anthony Keenan, retired superintendent at Continental Mills, Philadelphia, Pa., died recently. Before his retirement five years ago he had served the company for 25 years.

Samuel Nuttall, overseer of the sewing room at Elmira Knitting Mills, Elmira, N. Y., died recently. He had been with the firm for the past 25 years.

It's time we got *working* mad!

As we listen to the latest insults from Moscow, we're likely to get fighting mad.

Instead, we'd better use our heads and get *working* mad.

It is clear by now that Stalin and his gang respect just one thing—strength. Behind the Iron Curtain they've been building a huge fighting machine while we were reducing ours. Now we must rebuild our defenses—*fast*.

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All of us must now make sacrifices for the common good. But we're working for the biggest reward of all —*peace with freedom!*

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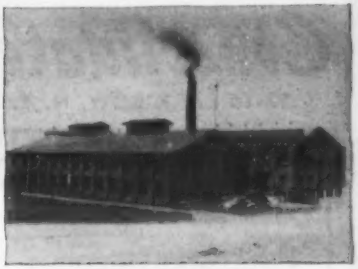

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140 C&K LOOMS 50" auto. 2x1, 20 har. mtrsd.
90 C&K LOOMS 52" auto. 2x1, 20 har. mtrsd.
5 C&K Jacquard LOOMS 72" 4x4 with Jacquards.
30 C&K LOOMS 92" 4x4, 25 har.
12 C&K LOOMS 96", 4x1, 8 har. mtrsd.
7 C&K LOOMS 110" auto. 4x1, 25 har. mtrsd.
8 D&F MULES, 360 spdls. 2½" ga. 14" bobbin.
1 OILER new, 3 nozzle sprayer, tank, pump and air compressor.
2 ROVERS, cone, worsted, 96 spdls. ea. 6x4.
1 ROVING FRAME, cotton, 132 spdls. D-2 long draft 8x4.
2 SPINNING FRAMES, worsted French, 400 spdls. ea. 2" ring.
11 SPINNING FRAMES worsted 180 spdls. ea. 2¾" ring.
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4 TWISTERS, 132 spdls. ea. tape dr. 4½" ring
1 WARPER, high speed, 54¼", taking 30" beam head.
1 WARP REEL 110" pinless neck reed, spool stand, mtrsd.
1 Cop WINDER, 20 spdls. 1948 model, cop 14" long.

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1—Davis & Furber 28" Ceiling Condenser.
1—Davis & Furber Rayon Opener.
1—Perkins 42"-3-roll Hydraulic Friction Calender, heavy duty.
1—Waldron 6-color Roto Engraved Printing Press.
1—Whitin Twister, 3½" ring, 4½" gauge.
8—Crompton & Knowles S-3 Looms, 72".
2—Smith & Furbush Garnetts, double cylinders.
1—Rice, Barton & Fales 8-color 60" Print Machine.
1—New Stainless Steel Can, 80" face x 72" diameter.
1—Sheridan 9A Embossing Press, 26" x 54", individually motor driven with some new embossing plates.
1—Morrison 30' x 60" wide Tenter Frame, enclosed drive.
1—Johnson & Bassett Mule (crated for export), 312 spindles.
1—Rodney Hunt Wring Master, 78" stainless steel immersion tank.
1—Birch 66" Ceiling Scutcher.
1—Tolhurst 40" Extractor, V-belt motor driven, suspended type, M.D.
1—Hunter 48" Shredder, ball bearing.
1—Hunter Stock Dryer, with conveyor and automatic feed.
1—Hurricane 3-fan, 6-section Section Dryer.
1—Franklin Package Dyeing machine.
27—50" Drying Cans.
1—Van Vlaanderen Net Dryer, 6 tiers, motor driven.
3—Foster #30 Winders, with tube and cone attachments.
1—Textile Finishing Machine Co. 5-bowl heavy duty Calender, 54".
1—Smith Drum Yarn Mercerizing Unit.
1—Proctor & Schwartz Blamire Lapper.
1—Pegg Dyeing and Finishing Machine.
1—5-cylinder 60" All Stainless Steel Boil-Off machine.
1—American 26" Extractor, stainless steel basket, motor driven.
1—Butterworth 120' Pin Tenter Frame, 80" wide, with a 90' Proctor & Schwartz Housing, individually motor driven.
1—National Loop Dryer, 3 fan, individually motor driven, 84" face, 20' long.
17—Copper Dry Cans, 80" face x 23" diameter.

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166 C&K 2x1S3 automatic shuttle changing — motorized looms complete—will weave 52" cloth.
128 C&K 2x1 automatic bobbin changing looms complete—weaving 50" cloth.
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C&K 4x4 72" large shuttle boxes motorized, complete — weaving 68" cloth.
20 C&K 4x4 large shuttle boxes motorized loom — complete, weaving 52" cloth.
80 Atwood Monarch type double deck spinners, motorized, 184 spindles each, complete excellent condition.
70 Draper model C automatic shuttle changing motorized looms complete — weaving 46" cloth.
9 can Johnson slasher 60" wide gear box stretch control with 26" flange beam, late type beam head excellent condition.
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Other advantages are free water rights and excellent sewerage.

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RESIDUAL SHRINKAGE CONTROL RANGE

Dalglish Pin Tenter Finishing Range, 1947

1—Morrison Micro-set Padder 60", 15 ton

1—Mt. Hope Continuous Feeder

1—Proctor & Schwartz Impinge Aire Roller Cloth Pre Dryer

1—Proctor & Schwartz Dalglish Pin Tenter Frame 100' long x 60" wide, single run with 80" housing

1—Proctor & Schwartz Cure Dryer 13' long x 114" wide

MORRISON WILLIAMS RANGE, 60" WIDTH, AGE 1948

1—Morrison Micro-Set Padder, 60", 15 ton

1—Morrison Williams Range, 2 Williams Boxes, 3 stainless steel wash tanks, 4 sets Morrison Micro Set Nip Rolls

1—Mt. Hope Continuous Feeder

MORRISON WILLIAMS RANGE, 50" WIDTH, AGE 1948

1—Werner Pneumatic Padder, 60", 15 ton

1—Morrison Williams Range, 3 Williams Boxes, 3 stainless steel wash tanks, 5 sets Morrison Micro Set Nip Rolls

1—Mt. Hope Continuous Feeder

6—Van Vlaanderen Stainless Steel Dye Jiggs, 50" tensionless, auto. reverse. Age 1948.

4—Van Vlaanderen Stainless Steel Dye Jiggs, 70" tensionless, auto. reverse. Age 1948.

5—Hinnekens Stainless Steel Dye Becks, 12'.

2—Rodney Hunt Stainless Steel Dye Becks, 12'.

2—Hinnekens Stainless Steel Dye Becks 6'.

1—Van Vlaanderen Tenter Frame 90' long x 60" with Nat'l 40' housing.

1—Winsor & Jerauld Tenter Frame 60' long x 60", M. D.

1—Textile Finishing Co. Tenter Frame, 40' long x 60", M. D.

2—Van Vlaanderen Tenter Frames 30' long x 60", M. D.

1—Textile Caustic Boil-off Range, full width 60" tank, with 3 s. s. rope washers, 8 compartments ea., 14' wide.

1—Rice, Barton & Fales Print Machine 45" width 14 colors, B.T.A. motor.

1—Rice, Barton & Fales Print Machine 44" width 10 colors, B.T.A. motor.

1—Rice, Barton & Fales Print Machine 43" width 10 colors, B.T.A. motor.

1—Textile Finishing Co. Print Machine 64" width, 8 colors, B.T.A. motor.

1—McDonald Co. Print Machine, 56" width, 13 colors B.T.A. motor.

1—Textile Ager 18' long x 56" width, 26 top rollers, M. D.

1—Textile Ager 20' long x 68" width, 27 top rollers, M. D.

2—Van Vlaanderen Palmers 68" width x 60" dia. with quetsch.

1—Morrison Palmer 68" width x 60" dia. jacketed cyl. w/quetsch.

1—Van Vlaanderen Palmer Tenter Unit 60" width with 50' tenter frame & 2 roll mangle.

1—Hinnekens Pneumatic Padder, 60" width, 3 rolls 12 ton.

1—Hinnekens Pneumatic Padder, 56" width, 2 rolls, 12 ton.

1—Van Vlaanderen Padder, 65" width, 2 rolls.

1—Van Vlaanderen Padder, 48" width, 3 rolls.

1—Hinnekens Padder, 65" width, 2 rolls.

1—Hinnekens Pneumatic Mangle, 52" width, 2 rolls, 12 ton.

1—Van Vlaanderen Decatizer, 60" width, Age 1947.

1—Van Vlaanderen Decatizer, 50" width, Age 1947.

4—Hinnekens Variable Speed Cloth Examining Tables.

1—Van Vlaanderen Hydraulic Calender, 50" width, 3 rolls, 80 ton.

1—Van Vlaanderen Hydraulic Calender, 50" width, 4 rolls, 40 ton.

1—Hercules Centrifugal Extractor 60", self-balancing.

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1—60 ft. 41" opening Butterworth clip TENTER

1—40' x 98' TENTER, W&J, S.S. clips, carbonic gas burners, electric controls

1—70' x 148" Textile Pin TENTER, carbomatic gas burners, electric controls

1—72" P&W Semi-Decater

1—82" P&S Rev. Stick Loop Dryer

140—40" Draper Mod. K Dobby LOOMS

100—52" C&K 2x1, 20 h. LOOMS

80—82" Draper Mod. D Automatic LOOMS

75—92" C&K 4x1 Automatic, 25 h. LOOMS

2—Stokes FIBRE CUTTERS

1—36" CHENILLE CUTTER

5—C&M FLOCK CUTTERS

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1—D. & F. 7' all iron Cone Duster
2—Schofield 48" automatic Duster (box)
1—Woonsocket 36" x 36" ceiling condenser & blower
1—D. & F. 28" Ceiling Condenser & Blower
1—P. & S. 36" Ceiling Condenser
1—D. & F. 48" Fearnaught Mixing Picker
2—D. & F. 6 bar mixing Pickers, 54", 48"
1—Dodge Undershot Shoddy Picker
1—Scrgent 36" Duplex Burr Picker
1—Schofield 48" Carding Hair Picker
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3—Hussong 500 lb. Stock Dye Kettles
1—Set (2 Cyl.) D. & F. Cards 48 x 60
4—P. & S. 2 Cyl. Garnetts, 20 x 60
2—Tolhurst 48" S/S Extractors (New)
1—Tolhurst 60" mtr. dr. Extractor, Monel Basket

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4—D. & F. or Altemus Warpers—rebuilt to order—82"—120", Pin or Pinless
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2—Altemus Long Chain Beamers
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4—C. & K. 82" 4x1 automatic Looms
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2—Whitin Quilliers 2½" Gauge (long chain)
1—Lasenby 15 sp. Cop Winder

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1—Hunter No. 10 Fulling Mill
1—Gessner Steaming Machine (Cloth)
2—Birch Bros. Doub. & Tacking Mach.
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1—Roy 80" Napper Grinder
1—P. & W. 66" 4 cyl. Brush & Sander
2—Tenale Gig's, double cylinder
2—Rope Scaping Machines
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1—S/S Lined 66" Wetting-out Tank with squeeze rolls
1—Set Dry Cans (12) 60"
1—Set Dry Cans (4) 40"
1—P. & W. Lancashire 93" Cloth Boarding Machine
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1—NEW Johnson 7 Drum Washer with Accessories
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1—E.H. FLAT FOLDER, 56" W, motor.

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2—V.V. BUTTON BREAKERS, 50"W.

1—P&W 72" SEMI-DECATOR, Nash Pump, motors, blanket, late type.

1—Textile 60" 2-roll CALENDER.

1—60" 4-color PRINT MACHINE.

2—R.H. S.S. DYEBECKS, 8'W, 60" D.

1—New S.S. DYEBECK, sample size.

1—Cocker, 1940 9-cyl. SLASHER, 82"W, S.S., complete.

10—S.S. DRY CANS, 43"W.

1—D&F 3-cyl. CARD 40x60" all iron.

24—W-3 92" Woolen and Worsted LOOMS.

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1—15 Spindle Whitin-Schweiter, Automatic Filling bobbin Winder, equipped for Draper Bobbins, Motor Driven.

24—60" Reedspace C&K 4x1 Looms, 20 Harness Dobby, Side Center Filling Motion, Plain Bearing, 2 shift pick counters, individually motor driven.

C&K 2x1 54" Reedspace COMPLETELY REBUILT LOOMS, Roller Bearing, shock absorber, heavy bar, individually motor driven, 20 harness dobby.

13—C&K 2x1 50" Reedspace oversize shuttle box, individually motor driven, 20 hook double index dobbys, 2 shift pick clocks, 1½ beams per loom.

16—C&K 2x1 52" Reedspace, oversize shuttle box, individually motor driven, 20 hook double index dobbys, 2 shift pick clocks, 1½ beams per loom.

1—30 Spindle Lasenby Model D-Jr. Cop Winder. Machine was installed in 1945. It is built with Roller Trumpets. Spindles to wind paper ribbon to cops 1⅛" dia. x 10".

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24—60" Reedspace C&K Plain looms, 20 harness double index dobby, plain bearings, 2 shift pick counters, motor driven.

2—20 Spindle Oswald Lever Back Winders.

4—2800 Hook Jacquard Machines—only

10—800 Hook Jacquard Machines.

20—#90 Universal Quillers and Coppers with and without bunchbuilders, excellent condition.

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8 Yard Slip Warpers 83" and 72"

Skein Winders, 60, 80, 100 spindles.

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125,000—7x3½ H&B Speeder Bobbins, Like New
50,000—6¾" A. L. Bobbins, for clutch spindle
3,000—2¼" Spinning Rings, Plate Holders
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1—VV Embossing Cal 38" Max.
1—48" Tolhurst Cop. Basket Extractor
1—48" American Open Top Extractor, Cop. Basket, Motor Driven
1—5 Can Finishing Mach. Textile 38" Face & 30" Dia.
3—Offermann Prince Smith 3 Head Gill Boxes & Creels
1—Silver Whitin Lap Mach. 20 Ends
1—Ribbon Whitin Lap Mach. 9" Lap
2—Mules, 336 Sp. 2 ¼" Ga. D&F
1—38 Roll 82" Woonsocket Napper
1—60" C&M Bble. Bed Press
1—2 Bowl Scouring Mach. Skeins
1—45" Parks & Woolson Shear
1—66 ¼" Parks & Woolson Shear
1—5 Cyl. Johnson Slasher, 66", Motor Driven
1—11 Can 55 Cocker Slasher, 50"
1—Cameron Slitter—K100
1—Slitter Multiple Circular Knives
2—D&F Spinning Frames, Model E, 120 Sp. ea.
1—Fully Auto. Links & Links 44", 6 Ga. Grosser Mach.
1—160 Sp. Collins Twister, 3 ½" R
1—Sipp Eastwood 84" Warper
1—Eastwood Herit. Warper 800 End Creel
1—Sipp DX High Speed Warper—Motor Driven
2—Cocker Warper Heads 1941-43 for 30" Beam Heads 54 ¼"
2—Entwistle High Speed Warpers, Individual Motor Driven, elec. stop motion in creel
1—Cocker High Speed Warper 624 End Magazine Creel
1—92" D&F Pinless Warp Reel Unit
5—Model #101 Foster Winders, Motors
3—Abbott Traveling Cone Winders, 80 Sp. ea.
1—Sipp 84" Winder complete with swifts, Motor Driven
4—Foster #101 Winders, 100 Sps. ea. Twin Motor Drive

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1—50'x90" Butterworth Pin Tenter Frame.
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2—150 gal. Jacketed Kettles with agitators.
One Set of 21-72" x 25" Dry Cans Horizontally.
2—54" General enclosed gear S. S. lined Dye Jiggs.
1—Set of 9—20" x 60" Heavy Steel Dry Cans.
1—Set of 7 copper cans, horizontal, Reeves & motor.
1—30" V. V. Button Breaker.
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1—64" Van Vlaanderen motor driven Tuber.
1—54" King & Gerber embossing calender, M.D.
1—60" V. V. M.D. Horizontal Extractor.
2—60" motor driven Beamers.
9—Herman measuring & inspecting machines tube to tube.
2—60" M.D. Tubing & Measuring Machines.
1—60" Measuring, Inspecting & Tubing Machine, tube to tube, new, variable speed, forward, neutral & reverse.
30-60 gallon copper steam jacketed Kettles.
1—50" Hermas Measuring & Inspecting Machine.
1—U.S. 7½ H. P. Vari-drive.
1—Sterling 7½ H. P. Vari-drive.
1—Reeves 7½ H. P. Vari-drive.
About 5,000 S. S. high speed V. V. Clips.
Agitators of various sizes.
Motors of various sizes.
New & Used Electric Hoists.

56 Model-K automatic draper looms, 47½ reed space Practically New.
2-3 ft. 2-8' 1-10' 1-14' Stainless Steel Lined Dye Boxes

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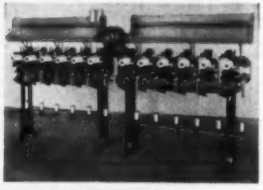

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Materials-Handling Show

(*Continued from page 127*)

resented almost 5% of all those who attended the 1949 show. The textile industry ranked 9th in number of men attending among 21 industries represented at the show.

The 1951 show, to be held at the International Amphitheatre in Chicago, April 30 through May 4, will have over 200 companies exhibiting equipment. Six acres of exhibit space will be indoors, and four acres outdoors.

The Materials-Handling Conference will feature 58 experts speaking on handling, including some from the textile industry.

Admission to both the show and conference is free. Tickets may be obtained at the show or in advance, if desired, by writing Editor, TEXTILE WORLD, 330 West 42nd St., New York 18, N. Y. TEXTILE WORLD will be at the show in Booth 448—look us up when you come. And whether you attend the show or not, look for the report of the show in the July, 1951, issue of TEXTILE WORLD.

Lap-Weight Charts

(*Continued from page 112*)

first and last few yard weights when estimating the maximum variation. With these few end yards included, the maximum variation will often amount to about 15% of standard yard weight.

This excessive variation in a few end yards of lap may not justify rejection if the total weight of lap is within tolerance and 90% or more of the yard weights are also within the ½-oz. tolerance. Such a variation may indicate that adjustments can be made to reduce the unevenness even though its complete elimination is not possible.

Lap-End Weights Usually Off

The first yards weighed are the last yards wound on the lap. Many charts made of yard weighings show a comparatively large reduction in the weights of these first yards. This lightness generally indicates that the lap has been run a long time after the picker has knocked-off. Prompt doffing of laps will tend to reduce this fault.

The last yards weighed are the first wound on at start of lap. These last yard weighings invariably show a large increase in weight. This increase is

(*Continued on page 334*)

16 FLETCHER AND SCRANTON REELING MACHINES

8 FLY UNITS — COMPLETE WITH AUTOMATIC STOPS — FOR 44" SKEINS, INDIVIDUALLY MOTORIZED — EXCELLENT CONDITION

35 GANGS 75A FOSTER CONERS
14 SPINDLES PER GANG—
3" 30 CONE, TAPER—MOTORIZED—
EXCELLENT CONDITION

26 C & K GEM HEAD 4 x 4 LOOMS
16—72" wide 10—56" wide—
Motorized
Heavy Duty Roller Bearing Looms, Elec. Feeler & Warp Stop Motions, in Excellent Condition—Looms Equip. with Beams.

2 JOHNSON SLASHERS
7 CANS—54"
Complete with
BROWN INSTRUMENT PANELS

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Lap-Weight Charts

(*Continued from page 332*)

due to stock deposited on the cages after the picker has knocked-off for doffing previous lap. Little can be done to reduce this heavy section on the starting of new lap unless an automatic doffer which provides continuous picker operation is installed. A part of this heavy place is usually discarded as a tail-end when piecing-in new lap on card.

Reports from a few mills claim a large reduction in lap waste on cards by moistening the lap pin before starting a new lap on the picker. This method is said to start the lap smoothly and prevent the folded-in section that is usually torn off on cards and put into lap waste. Some modification of this method might be effective in reducing the length of heavy end-yards that are now found in most laps.

The tolerance for satisfactory laps, according to yard-by-yard weighings, is generally based on the percentage of individual weighings which come within the yard-weight tolerance. A basis of 90% or more yard weighings within tolerance will assure laps of acceptable uniformity.

Chart Tells Source of Trouble

The nature of the fluctuations on the lap-weight chart will often give some indication of the cause of variations. Repeated swings from extremes of light to heavy and back again usually call for a close check on all evener parts. A sluggish response of the cone belt may be caused by faults in the linkage or pedals. A tendency to light weights may be caused by excessive friction on the brake-shoe or too much pressure on smooth calender rolls.

There are many other faults that a study of a yard-weighings chart may aid in locating and correcting. It is good practice to check any picker that shows abnormal variations. If the cause is not evident from yard weights, the whole machine should be checked. The start should be made at the evener pedals and followed right through to the cone belt and feed rolls. A repeat weighing and a chart of the lap produced after corrections are made will insure that the real cause has been found and that the proper remedy applied.

A regular check should be made, by a qualified service man, of all weighing and measuring implements, including lap scales and the lap-meter. a direct-reading lap-weight indicator for regain correction will aid greatly in keeping both yard weights and full-lap weights uniform.

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1—Verdiun 50" Hyd. PADDER, 2 rubber rolls, 20" dia., motor driven, 1948.

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29—H&B 3½" gauge frames; 14-204 sp. each, 14-228 sp. each, tape drive
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2—Barber Colman 4E tying-in machines

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40—Draper Modified D looms, 45½" reed space, 2 harness, belt drive
72—Draper Model E looms, 47½" reed space, 2 harness, belt drive
16—Draper Model R HEAVY DUCK looms, 2 harness, belt drive: 8-42" cloth, 4-70" cloth, 4-64" cloth
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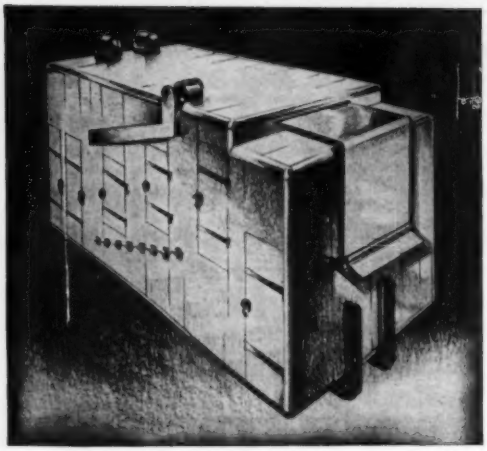

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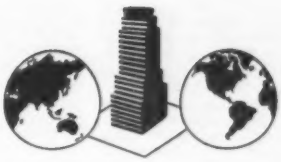

▸ Brief Summaries in Spanish, French, and German of the Major Feature Articles in This Month's Issue

Español

Hemos añadido este suplemento a la edición completa de TEXTILE WORLD de los Estados Unidos en beneficio de nuestros estimados lectores del extranjero. En las columnas siguientes encontrará usted información sobre los artículos importantes que aparecen en las páginas de este número—información que puede ayudarle a aquilatar cada uno de los artículos originales sacándoles mayor provecho en su uso individual.

TEXTILE WORLD espera que estas traducionnes breves, al idioma que es más familiar para usted, le sirvan de guía para decidir usted mismo cuáles articulos le conviene traducir por su propia cuenta, dado su interés especial en las diferentes fases de nuestra gran industria textilera mundial. Esas traducciones serán de gran valor práctico para aquellas personas de su organización que tengan dificultades con la terminologia de tejidos del idioma inglés.

Véase la página 3 de las hojas corrientes de este número para la relación completa del contenido en inglés.

Página 89

Telar Suizo para Muestras. Un telar suizo para muestras, en operación en una fábrica de Nueva Jersey, permite la hilatura fácil de cientos de dibujos diferentes con propósitos de muestras con la misma cardadura básica de dibujo y estiraje. Los cambios de dibujo son obtenidos de una maquinita eléctrica, y son hechos al arreglar nuevamente las estaquillas en la pizarra electromagnética en el mismo telar. Se ofrecen ilustraciones de diversas muestras de tela de uno y dos enjulios.

Página 92

Reparación General de Máquinas de Hacer Calcetines. La costumbre de "dejar tranquilas" las máquinas a la larga no es buena. Para obtener el máximo de producción, las máquinas de hacer calcetines deben ser reparadas periódicamente. De esta manera la fábrica estará en condiciones si hubiese escasez de piezas de repuesto, y además, la fábrica podrá entrenar operarios adicionales para "hacerse cargo" en caso de emergencia.

Página 94

Conservación de Telares de Prendas de Vestir. La lubricación y la limpieza adecuada de las máquinas adquiere mayor importancia debido a la posible escasez o reducción de le calidad de las piezas de repuesto. La manera en que una fábrica limpia sus máquinas afecta la duración de las agujas y platinas. Las ruedas de dibujo deben limpiarse, aceitarse y ajustarse propiamente. Una fábrica debe implantar la conservación preventiva para obtener más uso de todas las piezas y para reducir los costos de funcionamiento.

Français

Ce supplément a été ajouté à notre édition régulière américaine à l'intention de nos estimés clients d'outre-mer. Dans les colonnes qui suivent vous trouverez des renseignements concernant les articles principaux de ce numéro, renseignements qui vous permettront de juger de l'intérêt que ces articles peuvent avoir dans votre cas particulier.

TEXTILE WORLD espère que ces résumés présentés dans une langue qui vous est plus familière vous permettront de décider quels sont les articles qui vous intéressent suffisamment pour que vous les fassiez traduire plus en long par un traducteur de votre ville. Ces traductions seraient utiles aux membres de votre firme non familiarisés avec la terminologie anglaise de l'industrie textile.

Consultez aussi la Table des Matières, page 3 de ce numéro.

Page 89

Métier suisse d'échantillons. Un métier suisse employé par une usine du New Jersey permet le tissage de centaines de différents échantillons, en utilisant une même mise en carte et un même carton. Les changements se font par une mécanique à ratière électrique, simplement en déplaçant des poussoirs de contact sur le panneau électro-magnétique que se trouve sur le métier. Les illustrations montrent des échantillons à une ou à deux chaînes.

Page 92

Remise en état de métiers à chaussettes. Le système de laisser les métiers sans remise en etat périodique n'est pas à recommander. Si l'on désire obtenir un maximum de production, ces métiers devraient faire l'objet d'un examen sérieux à intervalles réguliers. De cette façon une usine ne sera pas prise au dépourvu si les pièces de rechange devaient devenir difficiles à obtenir. En outre, une usine pourra de cette façon créer des équipes de réparateurs compétents.

Page 94

Entretien de tricoteuses pour vêtements. La perspective d'une diminution de la qualité ou de la quantité des pièces de rechange pour ces machines à l'avenir rend d'autant plus importante la question de l'entretien et du graissage de ces machines. La façon dont le nettoyage par soufflage est opéré affecte directement les aiguilles et les platines et la longueur des services qu'elles rendront. Les roues à dessin doivent être nettoyées, huilées et réglées. Chaque usine devrait donner le maximum d'entretien "préventif" à ces métiers et s'assurer de la sorte que les différents organes donneront tout le rendement possible, réduisant de ce fait les frais d'exploitation.

Deutsch

Diese Beilage wurde der vollstaendigen Vereinigten Staaten Ausgabe der TEXTILE WORLD zur Erleichterung fuer unsere geschaetzten Leser in Uebersee zugefuegt. In den nachfolgenden Spalten werden Sie von den wichtigsten Fachaufsaetzen, die in diesem Heft erscheinen, in Kenntnis gesetzt, um Ihnen in der Auswahl der Original Aufsaetze, die fuer Sie von besonderem Interesse sind, behilflich zu sein.

Die TEXTILE WORLD hofft, dass Sie sich durch diese kurzen Uebersetzungen in eine Sprache mit der Sie vielleicht mehr vertraut sind, veranlasst fuehlen, Fachaufsaetze, die von besonderen Interesse auf dem Gebiet der grossen und weltumspannenden Textil Industrie sind, bei lokalen Uebersetzern ausarbeiten zu lassen. Solche Uebersetzungen waeren von praktischem Wert fuer diejenigen in Ihrem Unternehmen, die Schwierigkeiten mit englischen Fachausdruecken haben.

Siehe Seite 3 der Original Ausgabe fuer das vollstaendige Inhaltsverzeichnis in englischer Sprache.

Seite 89

Schweizer Musterwebstuhl. Ein Schweizer Musterwebstuhl, der in einer Fabrik in New Jersey laeuft, ermoeglicht rasches Weben von Hunderten von verschiedenen Mustern fuer Musterzwecke, von demselben Grundeinzug und derselben Musterkarte. Musteraenderungen erzielt man mittels eines elektrisch betriebenen Schafts und durch Umsetzen der Stifte am magnetischen Schaltbrett, welches sich am Webstuhl selbst befindet. Illustrationen verschiedener ein- und zweibaeumigen Gewebemustern werden bildlich wiedergegeben.

Seite 92

Ueberholen von Strickmaschinen fuer Kniestrumpfe (Socken). Die uebliche Praxis von "Hand ab" von Maschinen erweist sich auf die Dauer als nicht ratsam. Socken-Strickmaschinen sollen regelmaessig ueberholt werden, um Hoechstleistung zu gewaehren. Dies ermoeglicht einer Fabrik fuer den Fall, dass Ersatzteile schwer zu bekommen sind, vorbereitet zu sein und auch Arbeiter zu schulen, die im Notfall die Bedienung der Maschinen sofort uebernehmen koennen.

Seite 94

Instandhaltung von Strickmaschinen. Etwaiger Mangel, oder schlechtere Qualitaet der Ersatzteile, macht richtiges Reinigen und Schmieren der Maschinen doppelt wichtig. Wenn eine Fabrik ihre Maschinen vernachlaessigt, macht sich dies an den Nadeln und Platinen bemerkbar. Musterzahnraeder muessen gereinigt, geoelt und richtig eingesetzt werden. Eine Fabrik

Página 96

Conservación Preventiva en una Hilatura. Para mantener su equipo en óptima forma, una hilatura del sur de los E.U.A. ha emprendido un programa de reparación general completa. Cada una de las máquinas es retirada de la línea en rotación y se repara completamente en los talleres de la fábrica. Este programa de conservación preventiva es adicional al programa diario ya establecido. Los factores de duración esperada de las piezas en general de las máquinas son compilados cuidadosamente. Como resultado de esta labor se espera que bajen los costos de reposición.

Página 98

Máquinas de 400 Agujas. Las máquinas Modelo K de 400 agujas necesitan mucho cuidado si la fábrica espera obtener el máximo de ellas. La solución de los problemas grandes de conservación incluyen: (1) limpieza y engrase frecuente, porque la mayor parte de los hilos de nilón usados es de mucho encolado; (2) mantenimiento de buenos excéntricos en las máquinas y asegurarse de que el disco esté bien centrado; (3) ajuste bueno de la regulación, mecanismos de paro, embrague y portaplatinas para que produzcan el mejor funcionamiento; y (4) montaje cuidadoso de la máquina después de una rotura—no es cuestión de armarla como quiera otra vez.

Página 100

Optimas Condiciones de las Tricotosas Rectilíneas. Este artículo trata de cómo inspeccionar y reacondicionar las tricotosas rectilíneas de una manera práctica. Si una fábrica desea obtener máxima producción, las plagadoras de urdimbres, los carreteles y las filetas deben estar en buenas condiciones. Las tricotosas se pueden reacondicionar más fácilmente si se sigue un procedimiento específico. Se recomienda un procedimiento normal, y se ofrece un bosquejo de las etapas que hay que realizar en el reacondicionamiento.

Página 102

Conservación de las Máquinas de Mengundo. La generalidad de las fábricas de medias de menguado ha aumentado el volumen de producción de sus máquinas y equipo nuevo de manera tal que ha descuidado en parte el entrenamiento de fijadores adicionales para la conservación de su costosa maquinaria. La conservación puede mejorarse con el entrenamiento cuidadoso de los fijadores nuevos, conservando las máquinas limpias y engrasadas apropiadamente y usando el ecartamiento correcto en los ajustes, y enseñando a los fijadores a enderezar cuidadosa y adecuadamente las agujas.

Página 103

Hilatura de Medias de Estambre. La mayor parte de las máquinas de menguado usadas para tejer medias de estambre son antiguas. La tendencia a usar máquinas de menguado de ecartamiento más fino permite que las fábricas utilicen la maquinaria de ecartamiento más grueso para tejer medias de estambre. Este artículo hace una relación de la secuencia de 10 etapas en el ajuste, las cuales son necesarias para reacondicionar las máquinas de menguado que tejen medias de estambre.

Página 104

Elaboración de Cinta Peinada de Lana Corta. La lana corta que los peinadores tienen

Page 96

Maintenance préventive dans une Usine de Tricotage. Une usine du Sud, afin d'avoir son matériel dans un état impeccable, a commencé un programme complet de remise en état de ses métiers. Chacun de ceux-ci est enlevé de son emplacement et dirigé vers les ateliers de l'usine. Ceci vient naturellement compléter l'entretien habituel journalier. Une étude de la durée utile des diverses parties et pièces des métiers est tenue à jour. On s'attend à ce que ce système réduise les frais de remplacement.

Page 98

Métier de 400 aiguilles. Les modèles K 400 demandent un bon entretien afin d'en obtenir le maximum de satisfaction. Les facteurs suivants contribueront à la solution du problème d'entretien: (1) graissage et nettoyage fréquents vu que le fil de nylon est fortement apprêté (2) veiller à ce que les cames dans les métiers soient toujours en parfait état et à ce que le disque soit toujours centré (3) ajuster les cycles, les arrêts, les embrayages et les têtes à platines de façon à obtenir le meilleur rendement et enfin remonter tout métier, qu'on a dû démonter plus ou moins, de façon absolument parfaite, aucune négligence n'étant tolérée sous ce rapport.

Page 100

De l'entretien des métiers chaine. Cet article est dédié à l'inspection des métiers chaîne et à leur entretien. Les ourdissoirs, les ensouples et les cantres doivent également être en parfait état de façon à assurer le maximum de rendement de l'usine. Les métiers chaînes sont entretenus le plus facilement si une procédure standard est suivie. L'article en cite les points principaux:

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Entretien de métiers Cotton. L'usine de bonneterie moyenne qui emploie des métiers cotton a souvent tendance à songer surtout à la question du rendement maximum des nouveaux métiers en négligeant quelque peu la formation des équipes d'entretien pour ce matériel couteux. L'entretien peut être amélioré par la formation patiente de bonnes équipes de régleurs, par un graissage et un nettoyage méticuleux des métiers, par l'emploi de calibres bien appropriés et enfin par un apprentissage des tricoteurs pour qu'ils dressent les aiguilles d'une façon méticuleuse.

Page 103

Tricotage de bonneterie en peigné. La plupart des métiers cotton tricotant du peigné sont vieux. La tendance en bonneterie de passer vers des jauges de plus en plus fines rend bien des métiers disponibles pour le tricotage de peigné. Le but de l'article est de citer 10 points à suivre pour régler des métiers pour qu'ils soient adaptés au fil peigné.

Page 104

Peigné fait de laines courtes. Les laines courtes que les peigneurs sont obligés d'employer nécessitent des soins spéciaux de préparation, si l'on veut obtenir de bons résultats. L'article donne une énumération des divers points à considérer à cet effet lors du lavage, du cardage, du gillage, du peignage et du gillage final. Cette étude comporte aussi une série de formules concernant la production au peignage,

soll vorbeugende Instandhaltungsmassnahmen treffen, um Abnuetzung aller Bestandteile, und Erzeugungskosten, zu verringern.

Seite 96

Vor beugungsmaasnahmen in einer Strickfabrik. Eine Strickerei im Sueden hat ein komplettes Ueberholungsprogramm angefangen, um die Ausruestung in erstklassigem Zustand zu erhalten. Eine Maschine nach der anderen wird abwechselnd ausser Betrieb gesetzt und in der Werkstaette ueberholt. Diese Vorbeugungsmasznahme geschieht im Zusatz zum taeglichen Instandhaltungsprogramm. Lebensdauer aller Maschinenteile wird sorgfaeltig vermerkt. Man erhofft sich niedrigere Ersatzkosten.

Seite 98

400-Nadeln Maschinen. Modell K-400 Nadelmaschinen benoetigen gute Pflege, um einer Fabrik beste Leistung zu geben. Beseitigung der Hauptinstandhaltungsprobleme sind u.a. (1) Oftes Reinigen und Oelen, da die verwendeten Nylongarne meistens stark geschlichtet sind; (2) gute Schloesser an den Maschinen und Rippscheibe im Zentrum; (3) Anpassung von Zeit- und Abstelleinrichtung, Kuppelung, und Platinenkopf fuer beste Leistung; und (4) vorsichtiges, nicht nur ungefaehres Zusammensetzen der Maschine nach einem Zusammenbruch.

Seite 100

Erstklassiger Zustand von Trikotmaschinen. Dieser Artikel beschreibt, wie Trikotmaschinen in praktischer Weise zu untersuchen und herzurichten sind. Kettenschweifmaschine, Kettenbaeume und Zettelrahmen muessen in gutem Zustand sein, wenn eine Fabrik Hoechstleistungen erzielen will. Trikotmaschinen koennen am leichtesten durch Befolgung eines bestimmten Verfahrens hergerichtet werden. Ein Standardverfahren wird empfohlen und Richtlinien fuer die hiezu notwendigen Schritte gegeben.

Seite 102

Instandhaltung von Strumpfmaschinen. Die durchschnittliche Strumpffabrik hat soviel Gewicht auf Produktion und neue Ausruestung gelegt, dass sie ein wenig nachlaessig im Erziehen von zusaetzlichen Mechanikern war, um die teuren Maschinen zu erhalten. Instandhaltung kann durch sorgfaeltige Schulung von neuen Mechanikern, richtiges Reinigen und Oelen der Maschinen, Verwendung von richtigen Maszen beim Einstellen, verbessert werden. Es ist wichtig, bei Abrichtung von Strickern daraufzusehen, dass die Nadeln gut und vorsichtig gerade gebogen werden.

Seite 103

Stricken von Wollstruempfen. Die meisten Strumpfmaschinen fuer die Erzeugung von Wollstruempfen sind alt. Da die Tendenz fuer Strumpfmaschinen mit Feinteilung ist, sind solche mit Grobteilung am besten fuer die Wollstrumpferzeugung geeignet. Der Artikel skizziert in 10 Schritten die Reihenfolge der notwendigen Umaenderungen, um Strumpfmachinen mit Grobteilung, in solche fuer Feinteilung, umzubauen.

Seite 104

Kammzugerzeugung aus kurzer Wolle. Kurze Wolle muss, ehe sie durch die Kaemme

por fuerza que usar debe manipularse cuidadosamente en los procedimientos preparatorios, si es que se desea obtener una buena cinta peinada. En el artículo se ofrecen recomendaciones especiales detalladas para el cardado, preparación, peinado y preparación ulterior del material. También se ofrecen varias fórmulas para usarse en los cálculos de producción de peinado, estiraje, puncha y para la pureza de la cinta peinada.

Página 106

Tren de Tractor Eléctrico. Una fábrica canadiense ha instalado un tren de tractor eléctrico para las operaciones de manipulación en el interior de la fábrica. En un sólo año de operación se han ahorrado 25.000 dólares en los gastos de manipulación, en comparación con el método anterior usado. El sistema reembolsará por sí mismo su costo en menos de dos años. Las carretillas han sido diseñadas para manejar prácticamente todo tipo de paquete usado en la fábrica. Fueron necesarias varias modificaciones en los edificios.

Página 110

Propulsión de Encoladora de Urdimbres. Una fábrica del este de los E.U.A. instaló una sencilla propulsión de Servo-Control en una encoladora de aire caliente, para el encolado de hilos de mezcla de lana y rayón de cuenta mediana, a velocidades de 40 a 60 yardas por minuto. La tensión constante mantenida por la propulsión ha reducido la cantidad de hilos debilitados. La aceleración y los cambios de velocidad tienen regulación positiva. El embrague de fricción usado en otras propulsiones ha sido eliminado.

Página 112

Tablas de Peso de las Telas de Batán. Un estudio íntimo de las tablas de peso de la napa revela a menudo las causas de irregularidades en los pesos de las telas de batán. El pesado yarda por yarda en más significativo y puede ser más útil para localizar las fallas de las operaciones que el pesado total de la napa solamente. La interpretación correcta de las tablas puede indicar los cambios necesarios para hacer los ajustes, o en la operación general, de manera de mejorar tanto la uniformidad de la napa como la regularidad del hilo después.

Página 113

Los Instrumentos de Control Reducen el Consumo de Vapor. Se pueden obtener muchos métodos de control de temperatura de la teñidura que ahorran vapor y combustible. El tèñido a temperatura baja, las tinas eficientes termalmente, y los reguladores de vapor del tipo de estrangulación están entre los factores que pueden proporcionar economías en una fábrica. Una manera sencilla de ahorrar vapor y calor que puede emplearse en una tintorería, les étirages, déchets et la pureté des peignés obtenus.

Page 106

Locomotive électrique pour usines. Une usine canadienne a installé une locomotive électrique pour les manipulations à l'intérieur de l'usine. Une économie de $25.000 par an a été réalisée par rapport au système utilisé antérieurement. L'amortissement se fera endéans deux ans, grâce aux économies réalisées. Des remorques de différents modèles ont été créées qui sont adaptées aux différents produits de l'usine. Certaines modifications durent être faites aux bâtiments.

Page 110

Commande perfectionnée d'encolleuse. Une usine de la Nouvelle Angleterre a installé un nouveau Servo-contrôle pour encolleuse à air chaud pour fils constitués par un mélange de laine et de rayonne en numéros moyens. La vitesse est de 40 à 60 yards à la minute. La tension constante que le Servo-contrôle assure a réduit au minimum la quantité de fil ayant des sections faibles. L'accélération et les changements de vitesse sont sous contrôle positif. Les embrayages à friction que l'on trouve dans d'autres systèmes ont été éliminés.

Page 112

Graphs pour poids de nappes d'ouvreuses. Une étude attentive des graphiques révèle souvent la cause des variations de poids des nappes. Toutefois le pesage yard par yard donne des résultats plus précis et sera d'une plus grande assistance en révélant les causes de ces variations. Une interprétation intelligente des chartes permettra de décider quels sont les ajustements mécaniques nécessaires ou les changements de nature générale pour arriver à une uniformité des nappes et par conséquent des fils.

Page 113

Les instruments de contrôle réduisent la consommation de vapeur. Il y a différents systèmes de contrôle sur le marché qui permettent de réaliser des économies de vapeur et de combustible. Teinture à basses températures, cuves bien étudiées au point de vue du rendement thermique, soupapes régulatrices, sont parmi les facteurs qui conduisent à des économies. L'emploi de hottes et de fermetures de diverses espèces sont une autre façon de réduire au minimum la dépense de vapeur.

Page 121

Pour un bon "lainage" du coton. La condition essentielle pour obtenir de bons résultats est que l'armure du tissu soit bien choisie. En outre, voici ce qu'un des plus gros tissages des Etats-Unis a fait pour améliorer la qualité de ses tissus "lainés"

laeuft, vorsichtig in der Vorbereitung behandelt werden, wenn an gute Kammzuege erzielen will. Es werden Richtlinien fuer sorgfaeltiges Waschen, Krempeln, Gillen, Kaemmen und Nachgillen detailliert gegeben, sowie einige Formeln zur Berechnung von Kamm-Maschinenproduktion, Verzug, Kaemmlinge und Reinheit der Kammzuege angefuehrt.

Seite 106

Elektrischer Traktorzug. Eine kanadische Fabrik verwendet einen elektrischen Traktorzug fuer Transporte innerhalb der Fabrik. Im Vergleich zu frueheren Transportarten wurden in einem Jahr $25,000 erspart. Dieses System amortisiert sich in weniger als 2 Jahren. Zweckmaessig entworfene Lastwagen handhaben nahezu alle Arten von in der Fabrik gebrauchten Waren. Geringfuegige Umbauten der Gebaeude waren notwendig.

Seite 110

Verbesserter Schaermaschinenantrieb. Eine Fabrik in Neu-England hat einen einfachen Servo-Kontrollantrieb an einer Heissluft-Kettenschaermaschine zum schlichten von mittleren Garnnummern von Wolle und Kunstseide mit Geschwindigkeiten von 40-60 Yards per Minute, installiert. Gleichmaessige Spannung durch den Antrieb hat die Menge von schwachem Garn verringert. Beschleunigung und Wechsel der Geschwindigkeiten sind unter absoluter Kontrolle. Es eruebrigt sich die an anderen Antrieben verwendete Kuppelung.

Seite 112

Gewichtstabellen fuer Pickerwickeln. Genaue Studien der Pickerwickel-Tabellen ergeben oft die Ursache der Unregelmaessigkeiten der Pickerwickelgewichte. Bei Feststellung der Gewichtsdifferenzen ist Meter-fuer-Meter-Abwiegen mehr aufschlussreich als das Totalgewicht der Pickerwickel allein. Richtige Auslegung der Tabellen zeigt an, welche notwendigen Aenderungen zu machen sind, resp. welche Verbesserungen im Produktionsprozess notwendig sind, um einen gleichmaessigen Wickel und in der Folge gleichmaessiges Garn zu bekommen.

Seite 113

Kontrollinstrumente reduzieren Dampfverbrauch. Es gibt verschiedene Dampf- und heizparende Methoden zur Farbflotte-Temperaturkontrolle. Faerben bei niedriger Temperatur, waermehaltende Farbkessel, gedrosselte Dampfkontrolle, sind einige der Faktoren, die einer Fabrik Einsparungen bringen koennen. Gebrauch von Hauben (Deckeln) ist ein einfacher, in jeder Faerberei anzuwendender und ohne grosse Geldausgabe verbundener Weg, Dampf und Heizung zu sparen.

sin gastar mucho dinero, es el uso de cubiertas.

Página 121

Buen Perchado del Algodón. El requisito primordial para un buen perchado es un género de la construcción adecuada. Una de las principales fábricas de los E.U.A. ha desarrollado también otros controles para mejorar el producto perchado final con el mínimo de carreras – incluyendo desencolado, suavizado, tejido estabilizado y la fijación en húmedo y las velocidades reguladas apropiadamente.

Página 123

Vinilon del Japón. El "Vínilon," que es un alcohol polivinilo, es una fibra muy adaptable. Entre sus características se encuentran: (1) alta resistencia y gravedad específica baja; (2) gran resistencia al rozamiento y reprise de humedad; (3) resistencia extraordinaria contra fungo y moho; y (4) gran resistencia a los ácidos y álcalis. Este artículo informa lo que es el Vínilon y lo que puede esperarse de él.

Página 125

Motor de Telar con Volante. Se puede mejorar la producción y la calidad de tela usando un volante en el árbol de un motor de telar, ayudando así el telar cuando se requiera el máximo de fuerza por la acción del batán y las espadas. El volante permite usar motores de 1.200 rpm. en lugar de 1.800 rpm. y se puede elevar la velocidad más gradualmente cuando se desee. La instalación reduce el costo de la energía y elimina casi todos los problemas de variación de voltaje.

tout en réduisant au minimum le nombre de passages que l'article doit subir. Une surveillance méticuleuse est exercée sur les points suivants: désencollage, assouplissage, aiguisage des garnitures, et mise au point précis. On prête en outre la plus grande attention à la vitesse des laineuses.

Page 123

Vinylon de provenance japonaise. Le Vinylon qui est un alcool polyvinylique est une fibre versatile. Citons parmi ses caractéristiques: 1) une grande résistance et un faible poids spécifique, 2) une forte résistance à l'abrasion et un regain d'humidité, 3) résistance très marquée à la moisissure et à la rouille, et 4) forte résistance également aux acides et alcalis. L'article explique ce qu'est le Vinylon et ce qu'on peut attendre de cette fibre.

Page 125

Moteur électrique de métiers, à volant. Un volant monté sur l'axe d'un moteur électrique de métier à tisser peut améliorer la production et la qualité des tissus, en aidant le métier lorsqu'un excédant de force est demandé par la chasse ou le battant. Un tel volant permet d'utiliser des moteurs de 1200 au lieu de 1800 tours à la minute. En outre l'augmentation de vitesse peut se faire d'une façon plus progressive. Une diminution du prix du courant et moins de variations de voltage sont d'autres avantages qui résultent du système décrit.

Seite 121

Gutes Rauhen von Baumwollstoffen. Die wichtigste Voraussetzung fuer gutes Rauhen ist die richtige Konstrucktion des Gewebes. Eine hervorragende Fabrik in den Vereinigten Staaten hat auch andere Kontrollen zur Verbesserung des fertig gerauhten Erzeugnisses, mit einem Minimum von Arbeitsprozessen, entwickelt, inkl. Entschlichtung und Erweichung des Gewebes, Schleifen der Rauhkratzen, richtige Einstellung und Geschwindigkeit der Rauhwalzen.

Seite 123

Vinylon aus Japan. Vinylon (polyvinyl alcohol) ist eine vielseitige Faser. Einige ihrer Eigenschaften sind: 1) Besondere Staerke und niedriges spezifisches Gewicht; 2) Starker Abschuerfungswiderstand und Wiedererlangung der Feuchtigkeit; 3) Starker Widerstand gegen Pilz- und Schimmelbildung und 4) starker Widerstand gegen Saeuren und Alkali. Dieser Artikel erklaert, was Vinylon ist, und was man von ihm erwarten darf.

Seite 125

Schwungrad am Webstuhlmotor. Verwendung eines Schwungrades an der Welle eines Webstuhlmotors kann die Gewebeproduktion und Qualitaet verbessern, wenn erhoehte Kraft durch Aktion der Lade und des Schlaegers benoetigt wird. Das Schwungrad ermoeglicht 1200 RPM anstatt der 1800 RPM; Geschwindigkeit kann, wenn gewuenscht, erhoeht werden. Diese Einrichtung (Anlage) verringert Stromkosten und Voltveraenderungen.

Sírvase informarnos si le gusta este suplemento.

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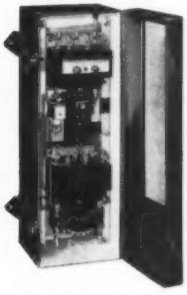

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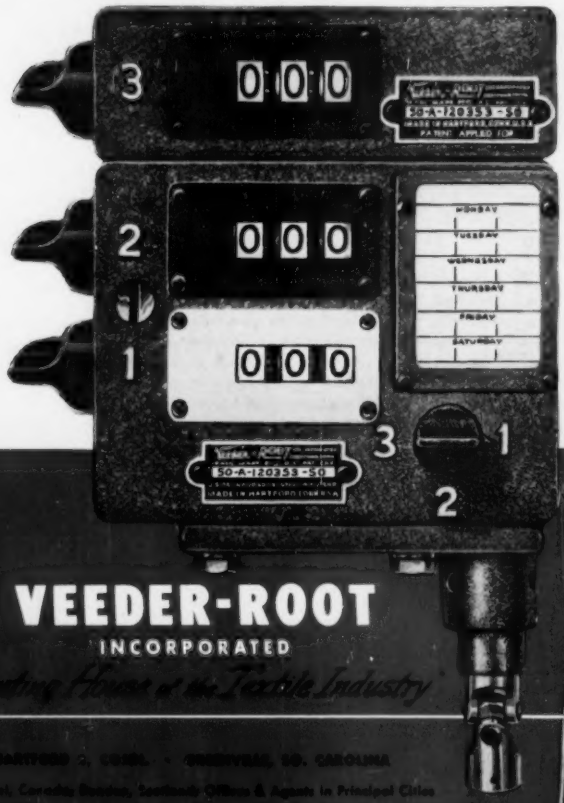

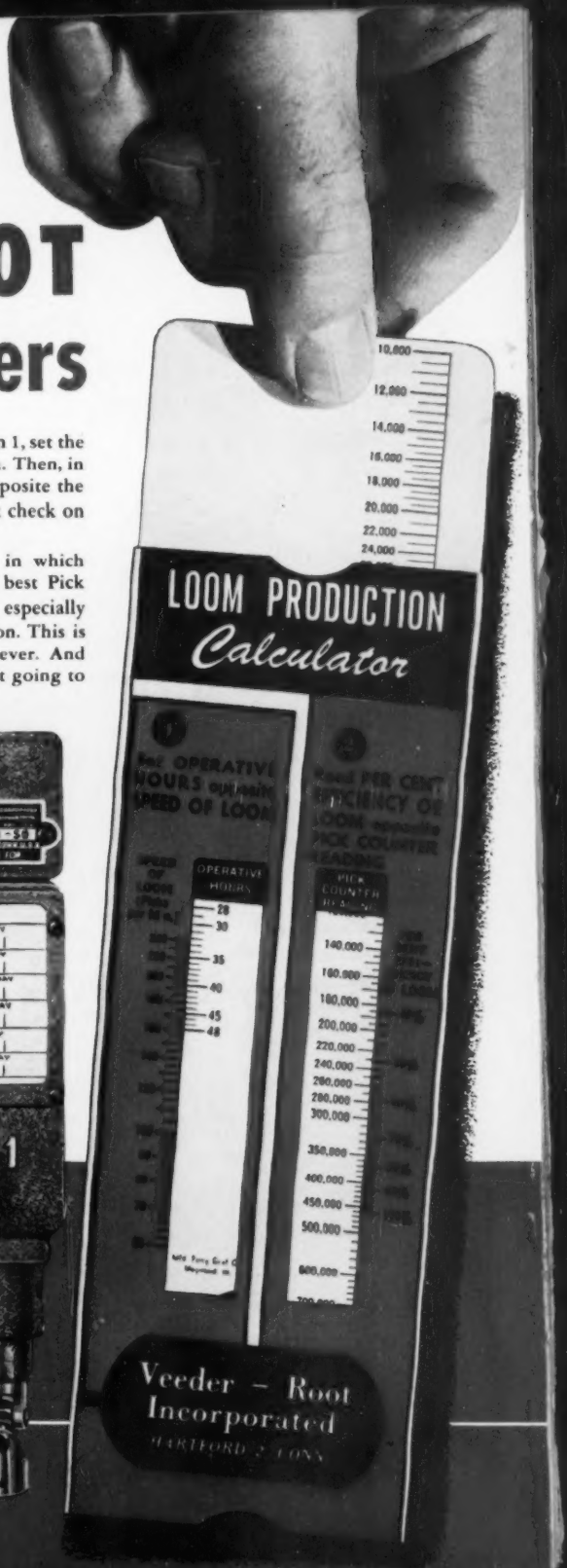

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